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MISTAKES IN DIAGNOSIS.

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In response to an invitation from the Executive Committee of this Society, I have selected for my theme "Mistakes in Diagnosis," and in so doing, I hope to engender discussion on a subject that, to me, is of great interest. There should be a department in every medical journal called the "confessional," where the penitent physician could record his many mistakes. Perhaps this has been thought of before, or even tried and then abandoned, because the confessional so crowded the other departments that the medical journal became a veritable "comedy of errors."

In confessing a few of the many mistakes I have committed and seen committed, I will confine myself strictly to medical diagnosis. The latter is confessedly more difficult than surgical diagnosis. It is vastly easier to become an expert surgical, than a good medical diagnostician. While the former, as a rule, deals with what may be called exoteric, the latter occupies himself with esoteric symptoms. While inspection and palpation furnish the chief clues to a surgeon in the construction of a diagnosis, the physician must be guided by more prolix methods of examination which are not always reliable. It is the current opinion among the laity that surgery is the highest development of medicine; hence, the surgeon is more advanced than the physician. The laity in their ratiocination are guided by results; and it must be confessed that this is the best *prima facie* evidence of ability; for the surgeon's results in treatment are more positive than those of the physician.

The latter emulating the surgeon, or governed by the dictates of the laity, occupies himself with therapy, at the expense of the more difficult requirement—diagnosis. The old aphorism, *Qui bene dignoscit, bene curat*, is not always true. We may be able to diagnose a whole list of organic, and for that matter, functional affections, and still be unable to cure them. The essential object of diagnosis, from a therapeutical standpoint, is not only to furnish an outline of treatment, but to know what not to do in a given case. In the art of healing we have as much to unlearn as to learn, and the materia medica of to-day still bears the imprint of superstition.

It is related of a celebrated London physician, that being called in consultation in a case of acute articular rheumatism, he detected a pericardial murmur, which the physician in attendance had overlooked. The latter expressed contrition for his carelessness; but the consultant assured him that "It was well he had not detected it, he might have treated it." The American student in Germany is amazed at the display of therapeutic nihilism by the professors of clinical medicine. Almost the entire hour of the lecture is devoted to etiology, morbid anatomy, symptomatology, and diagnosis, while a few minutes suffice for therapy.

Specifics in medicine are few; mercury and the iodides in syphilis, quinine in malaria, and, perhaps, salicylic acid in rheumatism, and you have exhausted the list. A physician who treats disease symptomatically, and recognizes the inutility of many so-called specifics, cannot but help emulating the example of his German colleague. If "meddlesome midwifery is bad," then meddlesome therapy is equally bad. No one, to my knowledge, has ever statistically calculated the harm done by indiscriminate medication, but all of us have seen ample evidence of it day after day. Unfortunately, we of to-day treat the disease, but not the patient. "And I said of medicine, that this is an art which considers the constitution of the patient, and has principles of reason and action in each case."[1] We fall into the common error of mistaking recovery for cure, and thus arrogate to ourselves certain rights which justly belong to the *vis medicatrix naturæ*.

The medical student after leaving college is fully stocked with a large number of prescriptions, which are constantly kept on tap, to be administered as occasion demands. This prescription for biliousness, this for dyspepsia, that for worms, and so on *ad nauseam*. The peculiarities of the patient or of the disease play no role in the application of these "misfit" prescriptions; and the greater the number of remedies employed the nearer will his aim reach the mark. Polypharmacy is thus carried to such ridiculous extremes that it is not unusual to find prescriptions containing as many as ten or more ingredients. Here is a prototype of one of the so-called "shotgun" prescriptions, given by a physician of large practice in this city for a cough:

—Syrup scillæ comp.--------
" senegæ ------------
" glycyrrhizæ --------
" prun. virginianæ ---
" balsam. tolu.-------
" morphiæ ----------
" ipecac.--------------
" limoni -------------
Tinct. opii camph. --------
" sanguinariæ -------
Tinct. cubebæ -----------
Vin. antimon.------------
Spirit nitros. æth.---------
Mel. --------------------āā ℥ss
Pulv. chlor. potass.--------
" mur. ammon. ------
" carb. ammon. ---āā ʒi—M

S.—A dessertspoonful every three hours.

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[1] Plato: Georgias.

Professional occupation neuroses, such as the spasms of telegraph operators, milk-maids, weavers, cigarette rollers, etc., continue to multiply, and it may not be long before another is added to the list, viz: prescription writers' cramp. If the physiological action of a remedy is to be obtained, it must be given alone, otherwise the truths of therapeutics must be learned in the laboratory and not at the bedside. Look at the prodigious list of proprietary remedies, and let us ask ourselves, if scientific medicine is not menaced by the rapaciousness of the manufacturer, and the credulity of the physician? These remedies survive because the physician is spared the labor necessary in constructing an original prescription. No one can deny our indebtedness to the manufacturing chemist for many new and elegant pharmaceutical preparations, but we reserve the inalienable right to combine these remedies as our judgment may dictate.

Diagnosis is in many instances hampered by injudicious medication. Let me cite, as instances, antisyphilitic medication at the time of the equivocal initial lesion; antipyretic treatment in many infectious diseases, where the thermometric curve is of such material assistance in diagnosis; and the employment of blisters in chest and abdominal affections, the effects of which not only interfere with diagnosis, but prevent a proper knowledge of the progress of the case. As we advance in medicine we incline further and further toward therapeutic nihilism. Modern medicine is preventive, not curative.

Our cherished theories of the past are antagonized by the rationalism of the present. Take fever as an instance: time was when the sole object of the physician was to reduce the temperature. Fever is now looked upon as a symptom, or as an effect; it is a conservative process and is necessary in destroying the pathogenic microbes. The growth of the tubercle bacillus ceases at a temperature above 105.8° F., and the spirilla of relapsing fever disappear at the close of each paroxysm, when the temperature reaches 107.6° F. It is unfortunate that we have thus far found it impossible to cultivate the germs of syphilis and malaria, two diseases which admit of specific medication. We could then determine if mercury and quinine respectively, owed their specific effect to a destructive action on the pathogenic microbes. In this way, the rationality of bactero-therapy, which modern medicine is attempting to elaborate, might be disposed of in a very little while.

It is related of a celebrated Viennese physician, that he never made a mistake in diagnosis. Perhaps he never made a diagnosis until the syndrome was unmistakable, thus emulating the example of many surgeons, who are always successful in their operations, simply because they select their cases. There are other physicians who err in diagnosis, but will never admit it. I recall the brilliant Professor Frerichs as an instance of the latter class. His clinical lectures were like the recital of an interesting novel. No symptom was missing to mar the continuity of thought which by induction led to a diagnosis. When a necropsy was made on a patient already presented to the class, he would return to his lecture room on the following day and employ the stereotyped expression, "we found at the autopsy what we expected." In his time, Virchow was, and still is, Professor of Pathological Anatomy at the University of Berlin. The latter made an autopsy on one of Frerichs' patients, diagnosed as abscess of the liver, but no abscess was found. Notwithstanding the negative results of the autopsy, Frerichs, on the day following, announced to his class as usual, "we found at the autopsy what we expected." Virchow heard of this announcement, and for a long time the bond of friendship between the two eminent savants was dissolved. One day they met in the ante-room of a prominent official, and as the guests were invited to enter the banquet hall, Frerichs and Virchow met unexpectedly at the door at the same time. One hesitated about preceding the other, and for a time it seemed as if neither would enter, until Virchow relieved the embarrassment by remarking, "You enter first, Prof. Frerichs; you well know that the pathologist always follows the clinician." This *bon mot* reunited the severed bond of friendship, but Frerichs, until his death, still employed the expression, "we found at the autopsy what we expected."

Sometimes diagnoses are recorded, which vie in accuracy with the diagnosis of a certain physician of large practice, who gave cholera infantum as the cause of death in a patient aged 90 years. The death certificates at a health office, furnish an inexhaustible field of research for the student of "curiosities in medical literature." Thus we find recorded mere symptoms as causes of death, such as dyspepsia, hemorrhage, diarrhea, liver disease, etc. It must be admitted, that at times it is impossible to aggregate the symptoms under the caption of a definite disease, in which case, some prominent symptom must, of necessity, be given as a cause. Thus there are many elderly individuals, in whom as a result of senile involution, marasmus must be assigned as a cause of death.

There is a large group of functional nervous diseases, which show no apparent lesion at the autopsy, in which case, it is impossible to furnish a rational cause of death. I recall the following case, which was seen in consultation in this city. A young married lady suffered from violent paroxysms of laryngismus stridulus. The attacks began after some domestic trouble. When seen, there was aphonia and many of the stigmata of hysteria. Attempts to hypnotize her, which were only partially successful, succeeded temporarily in restoring the voice and subduing the spasm of the glottis. Extra-laryngeal applications of the faradic current were recommended and a favorable prognosis given. On the following day, I was chagrined to learn from the attending physician, that the patient had died during the night. Was an error in diagnosis made in this case? I had seen a few cases which bore the semblance of hysteria and where the provisional diagnosis of hysteria was made. These cases proved afterwards to be serious organic nervous affections. Was this one of those extremely rare cases, where death occurred during the violence of the paroxysm? Owing to suspicious circumstances surrounding the death of this patient, an autopsy was made, which revealed nothing. As an aid to progress in diagnosis nothing can supplant the autopsy; its criticism is impartial, and its performance an absolute necessity in the completion of a diagnosis.

In referring to the causes of mistakes in diagnosis, I will not include the intentional errors made for the purpose of furthering self-interest. Not long ago, I was informed by one of the leading specialists of this city of a case, which he had diagnosed as ascites of cirrhotic origin. The patient did not make the progress hoped for by the anxious friends, and a recent arrival from Germany, whose sinister methods have since brought upon him the reproach of the profession, was surreptitiously called. The latter, introducing a catheter into the bladder, drew off some urine, and showing it to the astonished friends, informed them that he had removed the fluid from the abdomen, which the other physician had neglected to do. The late lamented Dr. Henry Gibbons told a story, which was always of great interest to his auditors. A gentleman prominent in commercial circles, having been duly impressed with the advertisements of a notorious quack, called on the latter for advice. The quack assured him that he was suffering from spermatozoa in the blood, and taking pencil and paper, he drew a blood vessel with a spermatozoon. "Now," said he, "as long as the spermatozoon runs parallel with the blood vessel nothing can occur; but, sir, let it become turned in the blood vessel, and the result would be stoppage of the blood vessel and immediate death." As a *denouement*, the quack next told his now affrighted victim that he would not be surprised if he were to hear of his death at any moment. "How much will you charge to cure me?" said the unfortunate patient. The quack assured him there were two methods of cure—the rapid and slow. The former would cost $500, the latter $250. The patient naturally selected the rapid cure, and wrote a check, payable to the quack, for $500. After receiving a bottle of medicine, the patient called on Dr. Gibbons, who at once explained the deception employed by the quack. Returning to the latter, the victim drew a pistol from his pocket and presenting it at the quack, demanded the return of the check, and, under the circumstances, the request was promptly granted.

Mistakes in diagnosis may be attributed to the following causes:

1. Incomplete or careless examination.
2. Misinterpretation of symptoms, due to errors in judgment.

3. Ignorance of the methods of examination.
4. Prejudiced preconception.
5. Incompleteness of medical diagnosis.
6. Placing too much reliance on the results of treatment.
7. Incomplete history of the case, and the incomplete development of symptoms.
8. Simulation or dissimulation on the part of the patient.

Incomplete or Careless Examination of the Patient.—I have often thought that the indigent inmates of our hospitals, used for purposes of clinical instruction, receive more consideration from a diagnostician's standpoint than does the patient in affluent circumstances. The latter usually consults some prominent practitioner, overrun with business or exhausted from overwork, who accords him but inconsiderate attention. Then, again, the successful physician often prides himself on the rapidity of his diagnosis. A story is told of a prominent Edinburgh physician, who was affected in this way. As the patients entered the clinic room he would turn to his students and announce the diagnosis. One day, as a patient entered the room, he said to his students: "A masturbator, a masturbator!" "No," said the patient, who had overheard him; "not a master baker; only a journeyman baker."

There is a large group of nervous diseases which admit of instantaneous diagnosis, and, in fact, the subsequent examination of many of these cases merely confirms the first impression. I will cite a few by way of illustration: Paralysis agitans is capable of immediate diagnosis. The marked inclination of the body forwards, the attitude of the fingers, as if employed in holding the pen, the immobility of facial expression, the peculiar gait, as if the patient were about to tumble forward, all give, when combined with the characteristic tremor, a clinical picture that is unmistakable. Exophthalmic goitre is recognized at once by the exophthalmos and pulsating struma. In lateral sclerosis and tabes dorsalis, the gait is unmistakable. It is difficult to confound the spastic gait of the former and the ataxic gait of the latter with anything else.

A short time ago an elderly gentleman called at my office for a diagnosis only, as he said, of his case. He had suffered absolutely no pain, but had paroxysmal diarrhea, the passages containing blood. He had lost about twelve pounds in three months. He had used the ordinary remedies for the relief of diarrhea, without result. A rectal examination demonstrated a rectal tumor. In accordance with the diagnosis, carcinoma recti, an operation was performed a few days later. Somewhat analogous to this is the case of a gentleman, who was also treated for diarrhea, but an examination of whose rectum showed at once paralysis of the sphincter ani. Subsequent examination revealed ataxic gait, absence of the knee-jerk, retardation of tactile sensation, Argyll Robertson pupil, and, in short, the typical picture of tabes dorsalis. Some time ago I treated a lady who suffered from incessant vomiting, lancinating pains throughout the abdomen, without definite localization and progressive emaciation. I suspected malignant ventricular disease. It was only after three weeks' treatment of this patient, who was getting progressively weaker, that some symptoms suggested examination of the rectum. Although she had a stool regularly every day, an examination of the rectum showed a fecal tumor of immense proportions, which, after removal with an improvised curette, cured the patient. It is now about four years since I treated a lady who suffered from paroxysmal attacks of unilateral cephalic pain, recurring every third or fourth day, and attended by nausea and vomiting. The diagnosis of migraine was made, which was concurred in by the consulting physician. The patient continued to get worse, and another physician was called, who, not as negligent as I, carefully examined the field of vision and found hemianopia. Examination with the ophthalmoscope revealed optic neuritis; a combination of symptoms, headache, vomiting, and optic neuritis, which suggested the diagnosis, cerebral tumor. I believe the autopsy corroborated the clinical diagnosis. Neglect to examine the urine is a frequent source of error in diagnosis. While many forms of nephritis are only diagnosed by an examination of this fluid, there is one form, chronic interstitial nephritis, where an examination of the urine does not at times reveal the presence of albumin, unless the most delicate reagents are employed. The symptoms of the latter affection are referable in the main to the circulatory, digestive, nervous, and respiratory systems, and unless the physician is especially acute in observation he is frequently led into error. I was recently asked to make an autopsy on an adult, to decide the question of diagnosis. There were four physicians in the case, three of whom diagnosed a cerebral affection, while the other made the diagnosis of chronic interstitial nephritis. The autopsy proved the latter to be correct.

As already stated the evidence revealed by the urine in the diagnosis of interstitial nephritis is often negative, and we are justified, in many cases, in diagnosing this affection from the persistent high tension of the pulse, thickening of the arterial walls, associated with hypertrophy of the left ventricle and abundant urine of low specific gravity. A few months ago a gentleman was sent to my office by a colleague. He suffered only from pains in the lower extremities and progressive weakness. An examination of his urine showed about 5 per cent. of sugar, and further examination revealed some symptoms belonging to the pre-ataxic stage of tabes dorsalis, the so-called diabetic tabes. I cite this case to show how negligent a physician may be in the examination of his cases, for the physician who sent the patient to me is an unusually intelligent practitioner.

Diabetes is a disease that is frequently overlooked in consequence of neglect to examine the urine, and its complications are so various that the ophthalmologist, neurologist, or dermatologist frequently makes the diagnosis.

Not long ago I diagnosed a floating kidney in an elderly woman; her pain was intense, and the conventional methods of treatment gave no relief. I advised nephrorrhaphy, and sent her to a prominent surgeon for examination, instructing my patient not to tell him that I had examined her. She returned, telling me that he diagnosed aneurism of the abdominal aorta. She said furthermore, that he had merely grasped the questionable tumor, and made no further examination. Here was a case, to the examination of which I had devoted at least an hour, only to find that a few minutes examination by another nullified my diagnosis. The case escaped my further observation. Perhaps the surgeon, in whose ability I have the greatest confidence, was right in his diagnosis and I was wrong, but I still believe that he should have devoted more time to the examination of my patient.

Sir William Savory tritely remarks, "Consciousness of one's ignorance may do much to avert the errors of carelessness, and he who has confidence in his own judgment should of all men be most careful in inquiry."

Cough is a symptom which has a various origin. I can recall one case where the removal of impacted cerumen caused the disappearance of a cough of many months' duration; and who of you has not repeatedly seen persistent coughs cured after uvulotomy? In this connection I wish to call attention to the much abused diagnosis "nervous cough." In my experience, nervous cough is the "cough of neglect." I can recall two characteristic cases so-called, where examination of the lungs gave unmistakable evidence of tuberculosis, and both patients have since died of the disease. It is but a few months ago that a physician of unquestioned ability in our State, punctured a pregnant uterus with a trocar, believing that he was dealing with a case of ascites. Thus we might go on citing instances of negligence in medical practice, which only go to show that errors in diagnosis are not so much due to ignorance as carelessness.

Misinterpretation of Symptoms Due to Errors in Judgment.—Under this caption mistakes arise, as a rule, from one of three causes: (1) Placing too much reliance on the subjective symptomatology. (2) Giving undue prominence to one symptom to the exclusion of others. (3) Grouping symptoms which are are the effect of disease, and not the disease itself. All of you can recall instances where you have been misled by subjective symptoms. There is no disease or symptom of disease which cannot be simulated by hysteria; and hysterical patients form the basis of many mistakes made in this direction. An hysterical patient whom I treated for a neurosis of the elbow joint without result, consulted a prominent surgeon, who diagnosed her affection as ankylosis. His diagnosis would have been correct had not the corresponding joint become similarly involved without previous traumatism.

The following case illustrates how mistakes may be made in diagnosis by placing too much reliance on the subjective symptoms. A gentleman suffered from attacks which, according to his history, could only be identified with *petit mal.* Such was the diagnosis made by two prominent physicians. This case proved to be one of vertigo, of gastric origin, provoked by hyperacidity. The attacks ceased after repeated washing of the stomach and suitable dietary. Another patient suffered from attacks simulating epilepsy. From the description of the seizures such a diagnosis would seem justifiable, were an objective examination negative; but this was not the case. He suffered from aortic stenosis, which, leading to defective blood supply of the brain, caused the attacks of fainting.

To illustrate how mistakes in diagnosis may occur by giving undue prominence to one or more symptoms to the exclusion of others, I will briefly cite two cases. The first was that of an elderly gentleman who suffered from incessant vomiting, the vomited matter having a coffee-ground appearance. He had emaciated progressively and suffered from rigors and fever of an atypical course. Examination of the stomach showed dilatation of that viscus and an absence of hydrochloric acid. A tumor was felt in the pyloric region. There was diffused dulness on the right side of the thorax. The latter I attributed to compression of the lung, the result of a previous pleuritic exudation. The diagnosis in this case was carcinoma ventriculi. This same patient was afterwards tapped and a large quantity of pus removed from the pleural cavity. My mistake in this case was unpardonable. The use of the hypodermic syringe would have at once established a diagnosis, a procedure which I neglected by giving undue prominence to other symptoms. The patient suffered not only from ventricular cancer, but from suppurative pleuritis. When the pathologist makes an autopsy he records many of the pathological conditions found as anatomical diagnoses. The clinician should be similarly guided. I recently saw a case where the following diagnoses were recorded; acute articular rheumatism, acute endo- and pericarditis, hemorrhagic infarction, and acute fibrinous pleuritis. A gentleman came many miles to consult a physician for constant pains in both lumbar regions, which had baffled the treatment of many doctors. The urine contained pus, and it seemed evident that the lumbar pains which were intolerable, were connected in some way with the pyuria. While the patient really suffered from pyelonephritis, the lumbar pains were occasioned by the pressure of a poorly constructed truss; as they disappeared from the moment its use was discontinued.

Mistakes in diagnosis often occur by grouping symptoms which are the effect of disease. It would appear at times, as if in our struggle to establish a diagnosis, it would be better to make none at all, rather than group symptoms under such equivocal expressions as neurasthenia, spinal irritation, hypochondriasis, etc. The diagnosis neurasthenia, means practically nothing. It is a condition of physical insanity with functional perturbation of one or more organs. In this, as well as in many other functional affections, the cause is, paradoxical as it may seem, the diagnosis; hence the importance of establishing in these cases the etiological diagnosis. Relative to the sexual apparatus which may form the basis of a large group of ill-defined symptoms, actual lesions of the apparatus are absent, and this is not surprising when we remember that the cause is one of functional abuse, the origin of which is psychical. I recall, in this connection, the case of a gentleman of more than usual intelligence, who had seminal emissions occurring three or more times a week for many years. During this time he suffered in no way, until reading some quack advertisement describing the symptoms in detail, from which time he began to complain.

Ignorance of the Methods of Examination.—Under this head numerous instances may be cited, in which mistakes are pardonable, where a specialist's knowledge is requisite in establishing a diagnosis; but this is not the case with a number of every day affections. I saw a case recently where the diagnosis of tabes dorsalis was made, based only on the fact, that no patellar tendon reflex was present. The tendon reflex *was* present, but the physician who failed to elicit it, did not take the ordinary precaution of securing muscular relaxation.

In a profession as empirical as medicine, numerous mistakes may be made without detection; but when the results of examination must be recorded the case is different. Thus, rejected applicants of insurance companies furnish a large contingent, illustrating ignorance of the methods of examination. A prominent physician in this city, in perfect health, was rejected because "one of his lungs was gone." Another applicant was rejected because he had albumin in his urine. The albumin consisted of phosphates which were precipitated on heating the urine. Another was rejected because phosphates in the urine were mistaken for pus. Thus, any number of instances of ignorance might be cited. An unprincipled physician could reap a harvest by putting in condition for reëxamination many rejected applicants, diseased or otherwise, for life insurance. Ignorance of the methods of examination frequently lead physicians to diagnose nephritis because albumin is present, diabetes because sugar is found, and heart disease because cardiac murmurs are heard.

Prejudiced Preconception.—In this connection mistakes frequently arise from two causes: (1) Placing too much reliance on the history of the case. (2) Being misled by first appearances. There are two chief methods of diagnosis, the analytic or inductive, *i. e.*, establishing a diagnosis from concrete facts, and the deductive. The deductive diagnosticians are liable to many errors in diagnosis. Like the critic, who never read a book before he reviewed it, because he might be prejudiced, so with the physician—he should not learn the history of his patient before he examines him. Diseases present such various pictures, that with our mental astigmatism, we can see anything we want. The personal history of the patient should only be used when possible in confirming the objective examination. Preconception of disease is illustrated by cases occurring in series. Thus, in one month, I saw eight cases of floating kidney. I am willing to admit that in a small percentage of these cases my judgment was obscured by preconception. Being misled by first impressions is a frequent cause of error in diagnosis. I recall a case which was diagnosed as intestinal carcinoma. I could not be mistaken; the cachexia was unmistakable, and it was this which prejudiced me. The patient got well. It was a case of fecal impaction. I saw a case which I diagnosed as floating kidney. I was prejudiced because I had seen two others during the same week; it was a piece of constricted liver, the result of tight lacing. Prejudiced preconception is frequently influenced by reading a description of some rare disease. I recently read a description of astasia-abasia. Within two weeks I saw two cases, *i. e.*, I was sufficiently prejudiced in the arrangement of symptoms to cause them to correspond with the disease in question.

Incompleteness of Medical Diagnosis.—When disease runs a typical course diagnosis is, as a rule, easy; but when the affection is atypical we are frequently led into error. In the typhoid form of acute tuberculosis, the differential diagnosis between the latter and typhoid fever is not only difficult, but impossible. So it is with a large number of affections. Until we have established a specific pathogenic microbe for each infectious disease, capable of differentiation from other pathogenic microbes, the diagnosis of infectious diseases must continue to be, as before, largely problematical. We have no absolute proof that the so-called afrebrile, mild and abortive forms of typhoid fever, bear any relation to typhoid fever, and this is also the case with the modifications of many other infectious diseases. In cholera, tuberculosis, malaria, anthrax, leprosy, etc., however varied the manifestations, the diagnosis is always positive. It is related of Frerichs, that after examining a patient who came many miles to consult him, he was in doubt about the diagnosis. The patient insisted upon knowing the nature of his trouble and Frerichs quieted him with the assurance that the diagnosis would be determined at the autopsy.

Placing too much Reliance on the Results of Treatment.—Under this caption we are frequently led into error by mistaking recovery for cure. In the earlier period of my practice, I had an obstinate case of pharyngitis sicca, that baffled all treatment. One day after making, as I supposed, the usual application to the throat, I was hurriedly called to the house of my patient, whom the messenger reported was choking to death. Examination of the throat showed a large number of vesicles. The truth at once dawned upon me; I had used an application of tincture of catharides by mistake. The recovery of my patient was complete, although the treatment was heroic and unintentional.

There are a few diseases for which we possess specifics, and the success following specific medication is frequently misinterpreted. About four years ago a case diagnosed as phthisis was referred to me. In the middle lobe of the right lung a circumscribed patch of dulness was found with the usual auscultatory signs of consolidation. The patient presented an eruption which resembled squamous syphilide, although a history of syphilis was denied. Notwithstanding the patient's denial, the case was diagnosed at that time as syphilis of the lung. The patient fully recovered under antisyphilitic medication. The eruption recurred about twice a year, and disappeared spontaneously; it was simple psoriasis, and I have every reason to believe that my patient never had syphilis. Psoriasis is frequently mistaken for syphilis, and as the former often disappears spontaneously, the success of antisyphilitic medication might be regarded as confirmatory evidence. Not long ago, while examing the blood of a patient who had splenic leukemia, I detected the plasmodia malariæ. I administered large doses of quinine, and my patient improved rapidly. Owing to rapidly accumulating ascites this patient was tapped twice in one month. Four weeks after administering quinine no fluid was detected in the peritoneal cavity, and the spleen was greatly reduced in size. In this case I do not consider the therapeutic test as reliable. In the first place, quinine will reduce splenic enlargements from any cause, and, secondly, cases of leukemia often undergo spontaneous improvement. Tabes dorsalis is also a disease which shows in its course decided amelioration, and specific medication employed at the time may guide our diagnosis in the direction of syphilis.

Etiological diagnosis is in many cases influenced by the success following the treatment of many so-called reflex neuroses. This success is largely due to suggestion, as any unbiased physician has observed.

In all these affections a neurotic element is predominant. Asthma is a disease which might develop by mere association of ideas. I recall the case of a gentleman who for many years was a sufferer from asthma. The removal of three polypi from his nose sufficed to cure him completely. Some time after, I had occasion to examine him for another affection, and inspected his nostrils as a routine procedure. I was surprised to find a number of polypi completely blocking the right nostril. I mentioned the result of my examination, and that night he had an asthmatic paroxysm, the first in two years. We all recall the experiment of MacKenzie, who induced an attack of hay fever by offering the patient an artificial rose to smell.

I have seen many patients with organic cardiac murmurs, the latter becoming less intense after administering iron. Under the circumstances one would be inclined to regard the murmurs as anemic; but upon more mature consideration this view would be dispelled. Impoverishment of the blood attends nearly all organic cardiac affections. Blood impoverishment would only intensify the regurgitant or stenotic murmurs; hence, the administration of iron would remove the factor in intensification. Some time ago I was consulted by an elderly gentleman whose case presented the characteristic symptoms of pyelo-nephritis. The urine contained large quantities of pus. I washed out his bladder as a placebo, and was surprised to find that after a time the pus nearly disappeared from the urine. An autopsy subsequently showed calculous pyelo-nephritis of both kidneys and an absolutely normal bladder.

Incomplete History of the Case and the Incomplete Development of Symptoms—The construction of a diagnosis without a history of the patient is like practising veterinary medicine. Unconscious patients are a frequent source of error in diagnosis. Coma may arise from a multitude of causes, and while differential diagnosis is possible theoretically, practically it is impossible.

I was one of four physicians who saw a case which we all agreed was one of apoplectic coma. The attending physician assured me later that the patient was an epileptic, with paroxysms occurring at long intervals, and that the coma which I saw was of epileptic origin. The specialist for diseases of children must, like the veterinarian, be an acute observer and a good guesser. The patient's history is in many cases a valueless story. Some patients misinterpret, others exaggerate, and still others underestimate the sensations experienced. A patient with diabetes, or locomotor ataxia, may suffer from nearly all the symptoms of these diseases, and yet will not consult a physician until impotency develops. Pain, fear of death, and impotency are the chief factors that prompt a patient to consult a physician. Diagnosis must be held in abeyance in many cases, owing to undeveloped symptoms. In this category belong the eruptive fevers and many acute infectious diseases.

Problematical diagnoses are delusive, and a diagnosis altered to correspond with each stage of the patient's illness is no diagnosis at all. The following case will illustrate my meaning: A middle aged female consulted me for the following symptoms: frequent and painful urination, pains in the bladder region, and chills. The urine contained pus and blood, and was alkaline in reaction. No casts were present and the amount of albumin corresponded only to the quantity of blood and pus. Diagnosis: Suppurative cystitis, probably due to a calculus. Washing out the bladder was followed by decided diminution in the quantity of pus and the disappearance of blood. Later, excruciating pains occurred in the right lumbar region, and palpation detected a large, irregular mass, extremely painful, arising from the region of the kidney. Hematuria followed the examination. The diagnosis now made was: Tumor of the right kidney. For at least three months after this examination, improvement was gradual, when suddenly she developed pains in the left lumbar region. Palpation of this region also showed a painful tumor, probably the kidney. Diagnosis: Bilateral calculous pyelonephritis. The patient died from anuria and pyemia. At the autopsy the right kidney was found to be absent, while the left kidney was in a condition of compensatory hypertrophy, and almost entirely destroyed by multiple abscesses. The bladder was hypertrophied and its walls were infiltrated with pus. An occasional disappointment to the physician is the temporary disappearance of certain prominent symptoms of disease.

I recall in this connection, the case of a gentleman in whom I found a floating kidney that was unmistakable. He was successively examined by Janeway, Sir Andrew Clark, Czerny, and Senator, all of whom denied the existence of a floating kidney. There was one prominent German physician, however, whose diagnosis corresponded with mine. It not unfrequently happens, as many clinicians have observed, that a floating kidney will return to its normal position, and however thorough the examination at this time, it can no longer be felt. I also recall the case of a gentleman, who had a faint systolic mnrmur over the aortic orifice. He was examined later by a prominent physician in New York, who assured him that he could detect no heart murmur. On the return of my patient to this city, I again examined him and was suprised to find that the aortic systolic murmur had disappeared. I also noted that my patient had increased very much in weight, which fact I believed contributed to the disappearance of the murmur. The patient then underwent a reducing regimen under which he lost about 20 pounds in weight. After this, the murmur was again heard.

Simulation or Dissimulation on the part of the Patient.—Simulation of disease is difficult, owing to the numerous methods at our command for its detection. Hyrtl, in his anatomy, refers to lapidation as a means of punishment for all unchaste females in the biblical period who entered the state of wedlock. The evidence of virginity afforded was the blood stained garments. He goes on to say, that in these effete times, virginity could be easily simulated by staining the garments with the blood of some animal. In these days of utilitarianism, the wife of a microscopist should avoid the means suggested by Hyrtl. A prisoner in one of our jails, who presumed to know something about medicine, presented a sample of urine for examination. One portion of the urine was sent to one of our leading chemists and another portion to myself. The examinations were conducted independently, The chemist reported that the urine contained more albumin than was normally present in the blood. My report was that the urine contained ovalbumin. Dissimulation is frequent in children who wish to avoid punishment, and it is unnecessary to recall instances of this kind which are common in every day practice.

Disease is expressed in a sign language peculiarly its own. The interpretation of these signs constitutes diagnosis. The translation may be correct, partially correct, or wrong. In all three instances, the results, as far as the patient is concerned, will, as a rule, be the same, provided no treatment is instituted. To treat a disease where the diagnosis is wrong, is adding insult to injury. In conclusion, I will relate the following story, which aptly illustrates how, notwithstanding a difference in the interpretation of signs, the result was the same.

A Spanish ambassador to Great Britain had formed strange ideas concerning the importance of the language of actions and signs. He claimed that at every university there should be a professor of signs. Imbued with this idea, he went to a certain university, and the faculty, not wishing to show that their curriculum was incomplete, claimed that they had a professor of signs. They arranged with a one-eyed butcher in their city, a good natured man, by name Geardi, who consented to play the part of professor of signs.

Geardi, dressed in a doctor's gown and an enormous wig, was introduced to his Excellency, who approached and lifted one finger; Geardi answered with two fingers; the ambassador raised three fingers; Geardi clenched his fist and shook it threateningly. The ambassador then held up an orange; Geardi drew out from his robe a loaf of bread. The ambassador now withdrew, and showed himself well satisfied. "Ah; he is a wonderful man," said he to the faculty later. "I held up one finger, to show that there was but one God. He held up two, signifying there were the Father and Son. I raised three, indicating the Father, Son, and Holy Ghost; upon which he clenched his fist, showing that the three were one. Then I showed an orange, denoting that God gave not only the necessities of life, but also sweet and pleasant things to beautify it. That marvelous man held up a loaf of bread, showing that that was the essential thing, and preferable to all demands of luxury and variety."

The professor having bade the ambassador farewell, sought Geardi for his version. He said, "The amdassador is an insolent man. He held up one finger, to show that I had but one eye. I held up two, to indicate that my one eye was worth two of his. Then he insulted me by holding up three fingers, showing that we had but three eyes between us. I shook my fist under his nose, and would have shown him my Scotch muscle, but for my respect for you. He then took an orange from his pocket, to tell me we could not grow them here. But I showed him a good Scotch loaf, to show that his oranges were nothing to me. I was going to throw the loaf in his face, when he bowed and left me. It was high time, for I was getting angry."

435 Geary street.

THIERSCH'S METHOD OF SKIN GRAFTING AS APPLIED TO GRANULATING SURFACES.

By Stanley Stillman, M. D., Assistant to the Chair of Clinical Surgery, Cooper Medical College, San Francisco, Cal.

Read before the California Academy of Medicine.

Little attention seems to have been attracted by Theirsch's announcement in 1874, of his success in grafting large sections of skin, and not till his second publication in 1886 was much interest taken in it.[1] The principles there laid down were, that the size of the graft is immaterial, provided that the subcutaneous tissue be not included in it, that the surface upon which it be applied be of normal tissue, that bleeding be stopped, and that both wound and graft be aseptic. The method has proved so successful and its results so gratifying that its present popularity is not surprising. Its advantages are that wounds too large to be covered by flaps or sliding can be covered immediately by it. The long period of granulation and cicatrization is thus avoided, and the surface covered does not contract, the result being a semi-cicatricial tissue that is pliant, soft, and usually quite movable on the underlying structures.

In its application to granulating surfaces the requirements are: (1) The thorough removal of all granulation tissue. (2) The suppression of the consequent hemorrhage. (3) An aseptic condition of the surface to be grafted and that from which the grafts are taken. If these conditions be fulfilled, it makes no difference as to the size of the graft. The removal of the granulation tissue may be accomplished by scraping and subsequently trimming all attached shreds from the base and edges of the ulcer, or by cutting, with a scalpel, both base and edges entirely away.

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[1] Verh. des Deutschen Gesellschaft f. Chirurg. Bd. iii, No. 69–75. Bd. v, No. 17–19. Bd. xvii, No. 66.

Hemorrhage may be stopped either by pressure on the bleeding surface maintained sufficiently long, or, if the ulcer be on an extremity, by the application of Esmarch's elastic ligature before removing the granutions. Asepsis may be secured by any of the approved methods, but all antiseptic solutions should be washed off the surface and instruments before the operation begins. The outer surface of the thigh affords the best situation for the removal of the grafts, though a few exceptionally wide grafts can be best secured from the upper half of the outer side of the leg.

The cutting is done by a well sharpened razor, with a fairly wide blade, not too hollow ground. The removal of large grafts requires a little knack—a to and fro motion of the razor is necessary, and the skin and muscles must be firmly held by an assistant and the operator in such a manner that they do not move with the lateral motions of the razor. If the surface in advance of the razor be kept wet the progress is much facilitated. A little practice makes it easy to remove a strip ten or twelve inches long if necessary.

The graft may be as wide as the dexterity of the operator permits, but three-quarters of an inch is about the average. The thinner it is cut the better, though it will live provided the whole thickness of the skin is not taken. The graft, as cut, piles up on the blade of the razor, and if the site of the ulcer be ready for its application, it may be immediately transferred, otherwise it is to be placed in warm sterilized salt solution (6 per cent.) until the surface to which it is to be applied is ready. It immediately curls up in the solution with the cut surface inward, and grafts so placed may be kept several hours if necessary. When the surface to be grafted is ready, the grafts are applied and the edges allowed to slightly overlap. It will require some teasing to get the infolded edges flat and smooth, and Abbé has cleverly devised the plan of spreading them raw side up on pieces of protective and then applying them after the manner of transfer pictures. This also avoids the scratching and rubbing of the surface, which are usually provocative of more or less bleeding. If the graft can be immediately transferred from the razor to its site, there is little difficulty from curling; it usually slides off the blade into its place, and this can be assisted by a few drops of salt solution placed in the hollow of the razor.

The entire surface is covered with the grafts, which are then covered with protective, and a moist dressing applied. Adhesion takes place by the organization of the thin layer of plastic exudation between the raw surface and the graft, and circulation is established both through the preëxisting capillaries and newly formed ones. In twelve hours, perhaps less, the thinnest parts of the graft become pink, the thicker portions remaining a dead white. If hemorrhage persists after the grafts have been applied, and clots have formed or been left on the surface, they will appear as bluish areas, the depth of color depending on the thickness of the overlying graft; such portions, in my experience, almost invariably slough. About the second or third day the pink color has advanced over the whole surface of the graft except that portion overlying a clot; there it has become a blue-black and the superficial layers of the epidermis are loosened; the overlapping edges are of course still white, and their separation from the living portions is accompanied by some slight suppuration. If salt solutions have been used, they may now be replaced with advantage by moist antiseptic dressings, after the surface has been washed with some weak antiseptic solution. If the surface has been free from clots and consequent sloughing, by the fifth or sixth day union is firm, and the subsequent dressing need only be protective, the surface being practically well in about ten days. If sloughing occurs in places, the vitality of the surrounding portions is in no wise affected unless infection takes place, and the small resulting ulcers rapidly heal.

Sometimes complete healing is delayed for three or four weeks; some desquamation is apt to follow for a time, scales forming and falling off for a period of several months; the thick middle portion of the graft gradually becomes thinner and nearer the level, until at last the surface is even and smooth. In one case that I had the opportunity of seeing, eleven months after operation, the surface was perfectly smooth, pliant, and movable, the skin seemed normal in thickness and to the touch, hair was of course absent, and along the lines of approximation of the grafts the color was much lighter, giving the surface a striated appearance. The surface from which the grafts are taken heals kindly in a week, when covered with protective and dressed with sterilized salt solution, and is not very painful. It is covered in 24 hours with an adhesive exudate, and if the section did not go below the middle of the papillary layer, the restoration of the epithelium is very rapid. The surface remains bluish-red for some months, and is usually scaly for a time, after which it becomes quite normal except that it is lighter in color. The hair grows normally over the surface.

The advantages of the method are: (1) The immense gain in time—a large area requiring no longer to heal than a small one. (2) The immediate cessation of pain and discharge. (3) A soft and pliant cicatrix that undergoes but little contraction.

The details of the procedure adopted in my own work are as follows: The ulcer is treated by ordinary methods till all acute inflammation has subsided and sloughs have separated. The surrounding parts are then shaved and thoroughly cleaned, and moist bichloride dressings applied for two or three days. The surface from which the grafts are to be taken is similarly treated for two days before operating. The patient is then etherized, and in all cases where practicable, Esmarch's elastic ligature has been applied, after elevation of the limb for ten or fifteen minutes. The dressings are then removed from the granulating surface, and the bases and edges cut freely and smoothly away with a scalpel. The cut surface and the surrounding parts are thoroughly scrubbed and washed with a sterilized bichloride solution, which is then thoroughly washed away with a 6 per cent. salt solution; there is no bleeding from the artificially anemic surface.

The place from which the grafts are to be taken is similarly washed. All instruments are boiled, and then immersed in the salt solution. The skin and muscles are firmly held by an assistant, that the skin shall not be moved with the to-and-fro motion of the razor; and a thin strip is cut, if possible, long enough to extend entirely across the area to be grafted. A few drops of salt solution are then placed in the hollow of the razor; the end of the strip held in place on the edge of the cut surface with a tenaculum, and as the razor is withdrawn the graft unfolds and slides off into place. It can be moved about, if necessary, by the finger, and the thin edges, if infolded, can be ironed out with the curved part of one tenaculum while the graft is steadied with the point of another. A similar strip is applied next to it and allowed to overlap slightly, and so on till the surface is covered. Narrow strips of perforated oiled silk are then applied, and six or eight thicknesses of lint saturated in the salt solution; next a piece of oiled silk with a hole cut in it over the centre of the dressing, plenty of cotton, and a fairly firm bandage.

The patient is then put to bed, and at the end of an hour from the time of application, the ligature is removed and the limb kept elevated till the consequent hyperemia has subsided. It is then immobilized as far as possible, and every six hours an ounce of the salt solution is poured through the hole left in the outer piece of oiled silk. On the the third day the dressings are removed, the surface washed with boric acid solution, superfluous portions of grafts trimmed off, and a moist boric acid dressing applied, which is renewed twice, at intervals of two days, when it is replaced by a dressing of zinc ointment for a few days. This is followed by a piece of lint spread with vaseline and a bandage, which the patient is advised to wear for a month.

When the elastic ligature cannot be employed, or the surface is large, and the patient's condition renders the prolonged administration of an anesthetic inadvisable, the procedure is varied by scraping the granulations thoroughly from the surface and edges, and trimming off all attached shreds; the bleeding is less than when a knife is used.

The curette should be a dull one—a tablespoon answers well. The surface is thoroughly washed with bichloride solution, afterwards with the salt solution, and covered with sterilized gauze, which is kept firmly pressed against it by an assistant or a bandage. Then a sufficient number of grafts are cut and placed in a basin of the salt solution, which is maintained at about blood heat, and the anesthetic discontinued, if desirable. In about fifteen minutes the hemorrhage from the curetted surface will have ceased, and if the grafts are all cut the gauze compress is removed, the surface washed with salt solution, larger clots removed, and any bleeding points pressed with the finger. Then the grafts are applied and spread out.

If time be an object and the surface large, Abbe's device is of great help; and if the patient be conscious, it saves much of the pain of manipulation on a raw surface; but its greatest advantage lies in the ease with which surfaces that are irregular or inconveniently situated, can be covered, as when the axilla, or both anterior and posterior surfaces of the leg, are involved. The dressing and subsequent treatment are the same as previously mentioned. The surface from which the grafts have been removed is covered with perforated oiled silk, and a moist salt dressing, which is replaced on the sixth day with a zinc ointment dressing.

On the legs, particularly when varicosities are present or a previous eczema existed, the maceration by the bichloride and salt solutions is exceedingly liable to be followed by a vesicular eczema, which may cause the loss of the superficial epithelium over all the grafted area. It may prove troublesome and delay the cure, but I have never seen it interfere with the vitality of the grafts or the ultimate success of the work. In other situations, I have seen no complications, and expect the surface to be practically well in ten days.

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CEPHALALGIA SUCCEEDING TRAUMATISM; TREPHINING; RECOVERY.

By HENRY W. SAWTELLE, M. D., Surgeon U. S. Marine Hospital Service.
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The following particulars of a case of headache are chiefly of interest in comparing the present methods of treatment of brain lesions with those of former years.

The subject was a seaman, 25 years of age, and a native of Portugal. He was admitted to the Marine Hospital, at Boston, February 12, 1892, suffering from intense pain in the head, extending from the frontal to the occipital region. He stated that he had always been healthy up to the first of November, 1891, at which date, during a storm, he was struck across the forehead by a swinging boom, which rendered him insensible for three or four hours. Three days later he was sent to hospital in Halifax, where he remained three weeks. When discharged from hospital he felt well, but about six weeks thereafter he was seized with severe headache, recurring once or twice a week, the attacks lasting four or five hours.

For eight days prior to admission to this hospital, he suffered almost constant pain of a pulsating character, referred particularly to the frontal region and extending to the occiput, worse at night, and rendering him unable to sleep. He is weak, and remains in more or less of a stupor, and his haggard expression indicates great suffering. No history of paralysis. Phenacetine and bromides, and all remedial agents exhibited, gave only momentary relief. A small scar, at the centre of the left frontal eminence, marked the seat of the original injury. Depressed bone was suspected as being the possible cause of the head symptoms, and trephining was decided upon.

The operation, accordingly, was performed on February 18, 1892. The patient was etherized, the head shaved and properly cleansed. A semi-circular flap was raised, the periosteum pushed aside, and a button of bone, 2½ c.m. in diameter, was removed from the left frontal eminence. No fracture or depression was found. The dura, which was somewhat tense and pulsating, was opened by an incision 2 c.m. in length, and about 5 c.c. of clear, serous fluid escaped. The membrane was opaque and slightly thickened. The opening was closed by a continuous suture of fine catgut, and the parts flushed with warm, distilled water. All bleeding vessels being controlled, the button of bone, which had been placed in a solution of carbolic acid 1:80 was replaced, the scalp wound closed with catgut sutures, a small drainage tube inserted, and sublimate gauze dressings applied. The dressings and drainage tube were removed on the fourth day. After the operation the headache entirely disappeared, and did not return again during his stay in hospital. The pulse, which had been subnormal prior to the operation, became normal and so remained. The wound closed by primary union.

Patient was comfortable and cheerful. Says that he feels as well as he did before the reception of the injury. He was discharged March 4, 1892. In October, 1892, he called at the hospital and reported that he was perfectly well.

The result in this case is in accord with the experience of surgeons who have recently opened the skull for various forms of cephalalgia. Their results are given in the *Journal of the American Medical Association*, of December 19, 1891, and are as follows: Keen, 1 case; recovered. Agnew, 2 cases; 1 recovered, 1 improved. Martin, 1 case; recovered. Horsely, 4 cases; 4 recovered. Prewitt, 2 cases; 2 recovered. Lanphear, 1 case; 1 recovered. Undoubtedly, there are many others who have operated with results similar to the foregoing, whose cases have not been recorded.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal., and
HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

The Galvanic and Faradic Current in Gynecological Diagnosis.—At the recent International Congress of Gynecology, DR. APOSTOLI read a paper, of which the following is a summary: In electricity conservative gynecology has found its most valuable tributary. Surgery also is destined to call electricity to its aid to illuminate its course, dissolve its doubts and sanction or hasten an operation, the necessity of which has been recognized, or prescribe another as superfluous, useless or dangerous. Two vital yet difficult questions daily confront the gynecologist. Are the adnexa diseased? If so, do they contain pus? To resolve these questions, so-called exploratory laparotomies and even castrations are performed daily. To avert the necessity of these operations whenever possible I propose the electrical treatment. Hereafter every exploratory laparatomy for inveterate ovarian pain, or for doubtful diseases of the adnexa, should be deferred until all the resources, on the one hand of faradic sedation, on the other of intrauterine galvanic reaction have been exhausted. I assert that intrauterine applications, either faradic or galvanic, intelligently and perseveringly interpreted, will generally establish a diagnosis in the following clinical conditions: *Faradic Current:* All ovarian pain is generally amenable to the faradic current of tension, if the rules formulated by me in 1883 are followed. Ovarian pain, whether hysterical or not, if not cured is nearly always relieved by the faradic current of tension, which, however, has little influence on pain of inflammatory origin, and especially on that due to inflammation of the adnexa. In these cases, then, the success of the faradic treatment establishes the diagnosis and interdicts surgical interference. Its failure, on the contrary, indicates that the pain has a firm seat and requires either galvanic treatment or surgical intervention. *Galvanic Current:* Applied in the uterus the galvanic current reveals the condition of the adnexa, the existence of inflammation and pus and the curability or incurability of the incipient inflammatory process. It may save us from errors of diagnosis, such for example as mistaking a sub-peritoneal fibroid for a salpingitis. Two facts of the greatest importance dominate intrauterine galvanic therapeutics: First, the absolute tolerance (with the exceptions I shall note) of the uterus when its periphery is healthy. Secondly, its intolerance, corresponding with the acuteness of the inflammation of the adnexa. The sensitiveness of the uterus to the galvanic current depends on the adnexa and indicates their condition. Besides this first and preëminent source of intolerance there are other sources whose differential diagnosis, however, is generally established with ease. They are, hysteria, with its sudden and lively reactions, its striking clinical features, hardly to be mistaken by the least observant; fibro-cystic tumors in the uterus, whose malignant character is very probable; pelvic inflammation. The clinical consequences derived from these premises may be briefly expressed. (1) Every uterus that tolerates a current of 100 or 150 milliamperes without operatory or post-operatory reaction, always has either a healthy periphery or at least a periphery not requiring present surgical interference. (2) Every uterus that does not tolerate 50 milliamperes, or which tolerates it badly and in which there is febrile reaction, has a suspicious periphery, that should be treated with prudence and moderation. (3) Every uterus whose initial intolerance diminishes as the symptomatic improvement progresses under the galvanic treatment, either belongs to an hysterical patient or possesses appendages whose inflammation is in process of regression or arrest. (4) Every uterus whose initial intolerance is excessive, increases with the number of applications and is accompanied by elevation of temperature, has a periphery invaded by disease not amenable to conservative gynecology.

Inversion of the Uterus.—Two cases of this accident are recorded as having taken place within a week in New South Wales. In one case the organ was restored to place after three days' inversion, in the other the reposition was accomplished on the eleventh day. Both patients recovered.—*Australian Medical Gazette.*

Spread of Scarlet Fever.—A single child sent to school before complete recovery from scarlet fever, in one of the arrondissements of Paris, was clearly shown to have been the direct cause of 150 other cases of that disease, with 18 deaths.—*Medical Record.*

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.,

J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal., and

G. F. SHIELS, M. D., C. M., F. R. C. S. E., Surgeon Polyclinic, San Francisco, Cal.

Appendicitis.—In recording twenty-seven cases of appendicitis PONCET and JABOULAY class them in six groups. In the first are four cases, with general purulent peritonitis, and gangrene of the appendix. Two of these were operated upon early, and one on the fifteenth day by median laparotomy and washing out of the peritoneal cavity, all with fatal result. In the second group are three cases of acute infectious peritonitis where there was no perforation of the intestinal wall, infection of the peritoneum taking place from a fecal mass or the pressure of pathogenic microbes in the lumen of the appendix. Two of them died from general peritonitis and one recovered. In the third group are seven cases of incepted purulent peritonitis with a sero-fibrinous effusion into the general peritoneal cavity; in all of which the abscesses were opened by incision and the appendix resected if it could be easily reached, the wound being dressed with iodoform gauze. All recovered except one, in which the abscess burst into the peritoneal cavity during manipulation and gave rise to a fatal general peritonitis. The fourth series comprise nine cases of peri-appendicular abscess without actual encroachment upon the peritoneal cavity. They were treated by anterior incision; eight recovered and one died from abscess in the lung The fifth class compose two cases of pericecal inflammation with false membranes, giving rise to a chronic inflammation and the production of lardaceous masses. These were treated by drainage. The sixth class consists of two cases of chronic dry appendicitis, accompanied by the formation of false membranes which cause adhesions to the neighboring parts of the peritoneum. In both cases the appendix was resected. From these cases the following conclusions are drawn: (1) In cases of retroperitoneal, acute, sub-acute, or chronic appendicitis, incisions should be made as early as possible, and the appendix should be sought for and resected. (2) In cases of intraperitoneal appendicitis, with general peritonitis, septic or suppurative, laparotomy is advised, followed by washing out and drainage of the peritoneal cavity. The pelvis must be examined, and if found full of fluid, drained from the vagina in the female and by the ischio-rectal method in the male. (3) In localized suppurative peritonitis, incision and drainage must be carried out, together with resection of the appendix, if possible.—*British Medical Journal*, December 24, 1892.

A New Operation for the Radical Cure of Inguinal Hernia.—In a paper read before the Southern Surgical and Gynecological Association DR. GEORGE A. BAXTER presented a radically different operation in principle from any yet suggested. It consists in a prolongation of the incision after the ordinary management of the sac and after ligation, through the internal ring into a more or less extensive laparotomy, as the exigencies of the case demand; lifting the neck of the sac into the abdominal opening above the ring and its fixation there by a deep suturing, cutting off the sac close above the peritoneum and its closure by buried suture, and a final closure of the abdominal opening by this and a more superficial set of sutures which pass across above the closed sac and peritoneum and underneath the deep fasciæ which are intended to approximate the homologous tissues of the abdominal wall. The ring is closed with crucial sutures, dipping over the cord and traversing the tissues, and the seminal canal closed with deep sutures alone. Points of originality claimed: A line of incision suitable for any inguinal hernia, and by the fixation of the sac above the peritoneum a deflection of all abdominal expulsive force from the ring and canal; the thickened lining of the internal ring and the method of closure of abdominal incision. Advantages claimed: Quick cure, with avoidance of necessity of truss; deflection of expulsive force from internal opening and canal to abdominal parietes; being able to approach constriction either from without or within; ample room for treatment in diseased conditions of sac or contents, including gut operation if necessary.—*Boston Medical and Surgical Journal*, December 15, 1892.

Caries of the Coccyx.—DR. R. E. DARRAH reports three cases of caries of the coccyx which had been admitted to the Boston City Hospital as cases of ischio-rectal abscess and fistula. In reviewing the literature of the subject he finds only twenty cases reported since the first operation, performed by Dr. J. C. Mott, in Mobile in 1844; for removal of the coccyx in this disease. Nine cases have occurred in males and fourteen in females. There was a history of injury in all except four cases. Pain (which was continuous) existed in all the cases except two. In some of the cases it was the only symptom noted; this was especially noticeable in cases occurring in the females, following parturition. Multiple and persistent sinuses occurred in twelve cases, including all the males. Excision of the coccyx was performed in all except four cases. In three cases there was no relief from the operation. One complicated with uterine disease and one with tubercular disease of the hip and spine, died. One died, following incisions and curetting, of sepsis. One recovered after incision and curetting. From the above the author draws the following conclusions: (1) Caries of the coccyx occurs very infrequently. (2) It is more common in females than males. (3) The important points in considering the diagnosis of these cases are: (*a*) History of injury; (*b*) constant pain; (*c*) multiple and persistent sinuses (not always present); (*d*) persistent sinuses should lead one to suspect caries of the coccyx; (*e*) excision of the coccyx is the best treatment for all cases when there is disease of that bone.—*Boston Medical and Surgical Journal*, January 12, 1893.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

Infantile Cataract.—DR. ALBERT R. BAKER, in a paper on this subject, formulates the following opinion: (1) Infantile cataracts should be operated upon early, within the first year if possible. (2) In Pyramidal and zonular cataracts in which vision cannot be improved to 20/L after fully dilating the pupil, removal of the lens is to be preferred to iridectomy. (3) Fluid cataracts are best removed at once by linear extraction. (4) Soft cataracts, including zonular and capsular, are best treated by first breaking up the lens thoroughly, and removing a few days later, by the combined linear extraction and suction operation. (5) Simple dicission is sufficient in very young infants, unless nystagmus should be present. (6) Only one eye should be operated upon at a time. (7) There are a few cases in which it may be advisable to extract one lens for distant vision and make an iridectomy on the other eye, so that a certain amount of accommodation may be preserved for near work.—*American Journal of Ophthalmology*, November, 1892.

Conjunctivitis Set up by Flies.—DR. BERRY reports two cases of this type. The first that of an old man with severe conjunctival inflammation, accompanied with extensive corneal ulceration, came on within twenty-four hours after having been stung in the eye by a fly that had apparently risen from a dunghill. In addition to the local disease there was marked general prostration, and the patient remained in feeble health for months afterwards. The whole course of the case seemed to indicate that the poison carried by the fly had produced the local inflammation and also general poisoning. In the second case a man, aged 20, the right eyelids and conjunctiva became acutely inflamed two days after a fly had got into the eye. The inflammation soon became unmistakably diphtheritic, and led to complete destruction of the cornea and very serious general symptoms. It could not be positively stated that the diphtheria poison was introduced by the fly, but the rapidity with which the symptoms followed the accident were at least suggestive.

MR. CAIGER mentions a case seen at Moorfields Hospital that was, in some respects, analogous to that reported by Dr. Berry. A stableman was struck in the eye by a worm from the intestine of a horse. When he came to the hospital, a few hours later, there was very marked chemosis of the conjunctiva, which gradually subsided. Mr. Caiger thought the inflammation might have been due to the introduction of some poisonous material contained in the excreta of the horse.

Intraocular Injections of Antiseptic Solutions.—Dr. Berry related the results of some experiments on rabbits, undertaken by his assistant, DR. CHASSAUD, with the object of ascertaining the effect of different solutions injected into the vitreous. In some cases, before injecting the antiseptic, the vitreous was inoculated with fresh septic pus. The only substance injected after the inoculation, which seemed capable of preventing purulent hyalitis, was chlorine water. At the same time, this solution was much better tolerated by the retina and vitreous than any other strong antiseptic solution. In two cases of purulent hyalitis in men, chlorine water injected into the vitreous, led to immediate improvement, and the eyes were saved, although sight had been lost before treatment had been adopted. Dr. Berry thought it probable, that in the use of intraocular injections, a distinct advance in ocular therapeutics might be made. He pointed out that injections into the anterior chamber and into the vitreous could scarcely be compared. He had frequently used solutions of perchloride of mercury to wash out the anterior chamber, but it usually resulted in corneal opacities. This opacity had occurred less markedly in children than in adults. —*Ophthalmic Review*, December, 1892.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

Compulsory Examination of Prostitutes for the presence of Gonococci in the Genital Secretions.—Dr. H. Buttner, of Dorpat, contributes an interesting article on this subject to the *St. Petersburger Medicinische Wochenschrift*, Nov. 21, 1892. He quotes Neisser (*Deutsche med. Wochenschr.*) who obtained the following results: Out of 527 public women whose genital secretions were examined in January, 1888, 216 persons, or 40.9 per cent. were found to be infected with the gonococcus. And of these 216, but 22 had a characteristic discharge—enough to arouse a suspicion of its infectious nature. Again, of the 216 cases, 126 were kept under medical observation and microscopical examination of the secretions regularly made. In 49 cases of the 126, the gonococcus resided in the urethral secretion, in 43 cases in the cervical secretion, and in 34 cases in both the urethral and cervical secretion. Buttner, as a result of his investigations in Dorpat, asserts that at least 48 per cent. of the prostitutes are infected with gonorrhea.

Syphilitic Chancre of the Eyelid.—Masit (*Journal de Mal. Cut. et Syph*), describes a rare case of this nature, in which a hard chancre of the penis coexisted with a like hard chancre of the eyelid in the same person.—*Centralblatt f. klin. Medicin*, No. 47, 1892.

Treatment of Urethritis by Topical Oleaginous Medication.—Dr. E. Chancellor has used campho-phenique with great satisfaction in specific and non-specific urethritis. The patient was directed to use the following injection from four to six times daily, by means of a small blunt-pointed syringe, the contents (about two drachms) being retained from one to two minutes:

Campho-phenique	1 to 2 drachms
Benzoated Zinc Oxide Ointment	1 ounce
Sweet Oil sufficient to make	4 ounces

This in a short time caused an amelioration of the symptoms and a rapid convalescence. A satisfactory experience has demonstrated that this agent, when mixed with oils or fats, is one of great value in venereal diseases, having properties which, for the sake of brevity, may be expressed thus: (1) It is an antiseptic, a local anesthetic, and, in proper dilution, entirely innocuous to the tenderest urethra. (2) The vehicle should be albolene, benzoinol, any bland oil or fat, or an ointment. (3) As an injection it appears to palliate the sensitiveness of the mucous membrane, and to act as a varnish over the entire tract, thus allaying the scalding and irritation subsequent upon micturition. Pain is greatly mitigated after the first few injections, each of which should be retained for several minutes. (4) Campho-phenique readily mixes with aristol or iodoform, should such a combination be desired. One scruple of either substance may be added to each dram of campho-phenique. But small amounts of such mixture should be ordered, as they must be freshly made every day or two. It is well to remember that the antiseptic index of campho-phenique is many times that of either iodoform or aristol. (5) Campho-phenique injections, as described above, have proven highly efficacious and satisfactory in cases of erosive granulations, ulcers, and indurations of the urethra. The troublesome discharges due to inflammation of the lacunæ of the urethra, succumb quickly to such injections, and danger of subsequent stricture is very much lessened.—*Journal American Medical Association*, December 17, 1892.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

Digitalis Therapy in Kidney Lesions.—When digitalis is given to a normal individual the general blood tension is increased and the heart's action intensified. This might be expected to increase the hydraulic pressure in the glomeruli and augment the flow of urine, but, owing to the fact that there is no obstruction to the exit of blood from the kidney the blood is simply driven more rapidly through it, and the pressure in the kidney is not increased. Consequently the amount of water discharged from the kidney remains about normal; but owing to the greater speed of the blood in passing through the kidneys, less time is allowed for the epithelial cells to formulate the nitrogenous waste and eliminate it from the body. The increase in the speed of the blood in its passage through the kidney, also lowers the perfection in the nutritive interchange between the blood and the renal tissue, and tends to damage the latter. In all kidney lesions in which there is no marked swelling of the epithelial cells (which when present compresses the venous capillaries on the efferent side of the Malpighian tufts), but in which the venous exit from the kidney is unimpeded, digitalis, as in the normal kidney, simply drives the blood more quickly through the kidney without augmenting the hydraulic pressure in the glomeruli. Consequently, digitalis in this class of cases does not produce any diuretic action, but decreases the excretory function of the kidney, impairs the nutrition of the renal tissue, and practically aggravates the lesion. On the other hand, if there is a general venous engorgement of the system, a passive congestion of the kidney, or an active determination of blood to the organ until the circulation therein is impeded—a result different from the above follows the use of digitalis. Likewise in all forms of parenchymatous metamorphosis or degeneration of the epithelial cells; where these become swollen and compress the veins outside the Malpighian tufts, and thus prevent the normal and free escape of blood from the efferent vessels of the glomeruli. When digitalis is given in any of these instances the heart's action is intensified and the arterial tension is raised. At the same time the splenic arcade, which includes the renal system, and which is not thus affected, is expanded by the general pressure; the volume of blood discharged into the kidney is thus very much increased and the blood pressure in the glomeruli raised. Now, as a result of the venous obstruction, either the circulation through the kidney must stop and the pressure be relieved by rupture of the capillaries constituting the Malpighian tufts, or the watery constituent of the blood must flow off through the uriniferous tubes. The latter generally takes place. With the relief of pressure within the glomeruli, and with the continued steady high pressure upon the engorged venous system in the kidney from the arterial side, the sluggish circulation throughout the organ is improved, and a more nearly normal volume of blood passes through the kidney in a given time. As a result the solid ingredients eliminated by the kidneys are also increased, as too slow as well as too rapid circulation interferes with the function of the epithelial cells. Thus digitalis in these cases becomes a true diuretic. The improvement in the circulatory and excretory activity of the renal gland improves its nutrition, and thus tends to cure the parenchymatous lesion and all other lesions belonging to the group above described.—*Merck's Bulletin*, December, 1892.

Tropa-Cocaine.—Tropa-cocaine or tropsin is obtained from a Java coca plant, and is a powerful local anesthetic, resembling, but not identical in local action, with cocaine. The most important differences between the action of cocaine and tropa-cocaine on animals are said to be the following: (1) Tropa-cocaine is less than half as toxic as cocaine. (2) The depressing action, both on the cardiac motor ganglia and on the cardiac muscle, particularly the latter, is much greater with cocaine. (3) Local anesthesia, both of the eye and of the skin, is much more quickly complete with tropa-cocaine, and is possibly of longer duration. (4) Slight hyperemia is occasionally present, in the case of tropa-cocaine, but speedily disappears; while with cocaine only ischemia is observed. (5) Mydriasis is usually absent, but always seems to be less than after the use of cocaine. (6) Solutions of tropa-cocaine are moderately antiseptic, and retain their strength for at least two or three months; cocaine solutions frequently begin to lose their activity when only three or four days old.—*Merck's Bulletin*, December, 1892.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

Chromic Acid a New Reagent for Albumin and Bile Pigments.—PROF. O. ROSENBACH (*Deutsch. med. Wochen.*) recommends a 5 per cent. solution of chromic acid to detect albumin. When a few drops of this solution are added to the urine, yellow flocculi are at once precipitated. Urine showing a precipitation of phosphates on heating, is at once cleared by the addition of chromic acid which, at the same time produces the yellow flocculent precipitate, if albumin is present. Unlike the test with nitric acid, chromic acid never produces a precipitation of urates. A soluble acid albumin, after the use of chromic acid, has never been observed by the writer. As a reagent for demonstrating the presence of bile pigments it is invaluable. When a five per cent. solution of the acid is added, drop by drop, to urine containing bile pigments, the urine becomes intensely green, which, unlike the test with nitric acid, lasts some time. The test may be modified by saturating filtering paper with the chromic acid solution and adding the urine to it; when, if the test is positive, a green color will be produced.—*Wiener med. Presse.*

Tracheal Tugging and its Clinical Value.—DR. WM. EWART, having heard that the value of this symptom was doubted as an aid to diagnosis, was led to inquire into the frequency of its occurrence in healthy individuals. In examining for tracheal tugging, the patient is placed in the erect position and directed to close the mouth and elevate the chin to the fullest extent, then the cricoid cartilage is grasped between the thumb and finger and gently pressed upward, when, if dilatation or aneurism exist, the pulsation of the aorta will be distinctly felt transmitted through the trachea to the hand. To determine the occurrence of tracheal tugging in the absence of disease of the aorta, 60 males and 57 females ware examined. In 28 per cent. of the females and in 50 per cent. of the males, some degree of tracheal tugging was recognized. In health the symptom is only slightly, if at all, present. Its occurrence in health is favored by cardiac excitement and forcible inspiration. While the exact clinical value of tracheal tugging is not established, it is deserving of further careful study.—*British Medical Journal.*

The Hematozoon of Malaria and its Value in Diagnosis.—DR. GIVEN CAMPBELL'S article on this subject is based on work recently done in Crookshank's laboratory in London. The hematozoon of Laveran, or plasmodium malariæ as it is also called, occurs in the blood of malarious subjects, and is usually found in the greatest numbers at, or shortly before, the outset of the paroxysm. It is generally found during the entire attack, but as a rule disappears between the paroxysms. In some cases which have existed for several weeks without treatment, it is found in considerable numbers even between the attacks. The organism occurs in several forms. The most common is that of ameboid, pigmented bodies, the pigment being in rapid oscillatory motion. These movements never continue longer than half an hour after the blood is removed from the body. The form which occurs next in frequency is free in the plasma, and is in the form of a crescent. There are others with flagella, and a rosette form has been described by many writers. For diagnostic purposes the blood should be examined before quinine is commenced, or if it has already been taken it should be suspended for several days, before the examination is made, as it rapidly destroys the parasite. After cleansing the finger and puncturing it, the blood is transferred to a cover glass and examined without a condenser, and with a rather small diaphragm. If the corpuscles cling together in rouleaux, gently press the cover glass and they will separate. The ameboid bodies will be seen as bright spots on the surface of the red corpuscles, and the flagellated bodies are recognized by their agitation of the surrounding blood cells. Permanent preparations may be made after drying the blood on two cover glasses, by staining for 30 seconds in a concentrated watery solution of methyl blue, then rinsing in water, and using a concentrated aqueous solution of eosin as a counterstain for 30 seconds. The preparation may be mounted in a dry state by cementing the edges of the cover glass to the slide. The blood discs should be stained faintly pink, the leucocytes dark blue, and the hematozoa, a pale blue. These organisms never occur in any other disease or condition than malaria. They can be practically found in all cases of malaria, and their presence even in small numbers is diagnostic. The hematozoon has never been cultivated, but men, on whom intravenous inoculation with fresh blood containing the organism has been performed, develop typical malaria with the presence of the organism in their blood.—*Medical Fortnightly.*

The Cardiac Indications in the Treatment of Pneumonia.—DR. J. M. ANDERS attributes the cause of cardiac weakness to the following three conditions: (1) An absorption of toxic ptomaines as a result of the disease process, with a weakening of the heart muscle. (2) Pulmonary obstruction, produced by the presence of the exudate acting as a local barrier to the integrity of the circulation. (3) Formation of cardiac thrombi, which are found in the right ventricle. The signs of muscular degeneration appear as a feebleness and shortening of the first apex sound, and a similar condition of the aortic second sound. The pulmonary second sound may be accentuated. Alcohol is here indicated. It stimulates the cardiac ganglia, the respiration, and the nerve centres. It should be followed up by strychnine. Digitalis must be used with caution. By lengthening diastole it may favor nutrition of the heart muscle. For the local engorgement cups, leeches and ice bags are profitable. He distinctly deprecates the use of aconite and similar cardiac sedatives. Morphine is the remedy for cardiac over-action. A fever of 104° F. needs no antipyretic treatment. Beyond that limit he employs frequent cold sponging and 16 to 20 grains of quinine a day. The coal tar products are cardiac depressants. To overcome the obstructed pulmonary circulation, digitalis, combined with nitro-glycerine, may be employed. The former strengthens the heart, the latter depletes the lung. The signs of cardiac thrombi are as follows: Impulse of heart is irregular. Area of dulness is beyond right of sternum. Systolic bruit at the xiphoid cartilage, transmitted up to the left. To counteract cardiac thrombi, ammonium salts are the only remedy with which to affect the fluidity of the blood. These should he freely administered.—*Medical Record.*

Tetany of Gastric Origin.—BOUVERET and DEVIC recount the histories of 23 cases of this disease associated with dyspeptic symptoms and hypersecretion of the stomach. In 12 of these cases ulcers or cicatrices were present in the stomach. Tetany is always a severe complication of dilatation of the stomach; and in 16 of the 23 recorded cases death occurred in consequence. There are three theories in explanation of the disease: (1) Dehydration of the blood. (2) Reflex irritation. (3) Intoxication due to the retention of the stomach contents. The latter theory is the most probable.—*Rêvue de Medecine.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Paranoia from the Clinical Standpoint.—DR. C. NEISSER maintains that the fundamental symptom of paranoia is neither the delusions nor the hallucinations, but what he calls "morbid self-reference," or the disposition on the part of the patient to imagine that everything has some mysterious reference to themselves. This symptom is never absent and is frequently for a long time the only noticeable one in the earlier stages of the disease. The intelligence of these patients is, as regards matters not connected with their delusions, often perfectly good, and the author is therefore inclined to think that the morbid self-reference may have a local origin, and he suggests the hypothesis of Meynert, that irritative conditions in the medulla oblongata may cause hypochondriacal feelings, and thus keep the attention of the patient constantly fixed upon himself. The hallucinations he is disposed to regard as due to local irritation of sensory areas in the cortex.—*American Journal of Insanity*, October, 1892.

A Village of Congenital Criminals.—DR. LOMBROSO, the well-known Italian anthropologist, states that a village of criminals has been discovered in the village of Artena, which enjoys an infamous notoriety, its inhabitants being robbers, thieves and assassins. In the Italian chronicles of the middle ages, Artena already had this reputation. A search through the judicial records shows the same names continually appearing, a testimony to the hereditary character of criminal impulses.—*Medical Review.*

Disastrous Results of Syphilis.—M. MOREL LAVALLÉE has lately published several cases of disease of the central nervous system, following syphilis, which give a vivid picture of the terrible results sometimes following the inroads of the latter disease. A young woman, 18 years old, transmitted syphilis to her lover, a medical student, shortly after she had contracted the disease. The infection of the student was followed by headache, with increasing severity, irritability of temper, marasmus, and death in about two months from syphilitic meningitis. The following year the same young woman, having become the mistress of a second medical student, called Secundus by the author, likewise infected him with syphilis. She then left Secundus for Tertius, with whom she lived maritally for some time, during which period she was twice confined. Nine years afterwards Tertius entered the matrimonial state, and in due time his wife was delivered of two children, healthy and robust. After some years he became delirious, tried to kill his children, of whom he had previously been very fond, and it was soon necessary to confine him in an asylum. The diagnosis made was, general paralysis, resulting from ancient syphilitic infection. His death followed shortly afterwards. A similar fate was meted out to Secundus, after a very similar marital experience. Quartus, the next victim in order, was a pharmacist. He met with the same sad end, dying from progressive general paralysis, maniacal in form. Monsieur C. Quintus, an engineer, also found his death from syphilitic insanity. The woman who was the source of all this infection, afterwards became legitimately married, regained her health, and begot healthy children.—*Gazette des Hôpitaux.*—*Medical Record*-

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FORMULÆ.

By Geo. B. Somers, M. D., San Francisco, Cal.

Constipation.—Dr. W. A. Hammond prescribes the following to produce daily evacuations:

Aloes ext. aquosæ-------gr xx
Fel bovis exsic----------gr xxv
Podophyllin-------------gr ii—M.

ft pil. No. x.

S.—One at bedtime.—*Virginia Medical Monthly.*

Allingham's Ointment for Hemorrhoids:

Bismuth subnit.---------- ℥ i
Hydrar. chlor. mit-------- ℈ ii
Morphinæ-----------------gr iii
Glycerine ---------------- ʒ ii
Vaseline------------------ ℥ i—M.

S.—Use in pile-pipe.—*Lancet-Clinic.*

Acute Rheumatism. — Satterlee uses the following as a topical application:

Tr. aconit. rad.
Tr. arnica-------------āā ℥ ss
Chloroform------------- ℥ i
Tr. saponis camph.------ ℥ ii—M.

S.—Apply locally.—*Southern Medical Record.*

Corns.—The following application frequently cures (*Med. Record*):

Acid salicyl.------------ ʒ ss
Ext. cannabis ind.------gr x
Collodii flexibilis------- ℥ i—M.

S.—To be applied by means of a brush two or three times a day.—*Journal American Medical Association.*

Tonsillitis.—The following prescription is recommended for use as a prophylactic for persons predisposed to the development of tonsillitis:

Olei menthæ piper.------m viii
Ac. carbol. cryst.--------- ʒ i
Spr. vin. rect.------------ ʒ ii

S.—Ten drops in a cup of warm water, morning and evening, as a gargle. *Medical News.*

Solution for Dressing Syphilitic Ulcers:

Salicylate of mercury
Carbonate of potash--āā gr xv
Distilled water---------- ℥ vi

S.—Use this solution for moistening compresses applied to syphilitic ulcers. *Union Médicale.*

Iodized Vaseline.—Dissolve:

Iodine ------------------ 5 parts
Ether-------------------100 parts

And add to the solution:

Vaseline ---------------- 95 parts

Leave until the ether evaporates.

N. B.—Iodized vaseline keeps better than the tincture.—*Nouveaux Remèdes.*

Dyspepsia.—Dr. Louis Sears says in many cases the following is a capital prescription:

Acid hydrochlor. dil.----m x
Acid lactic--------------m x
Glycerini----------------m xv
Inf. chiratæ-------------- ℥ i—M.

—*Times and Register.*

Ointment in Measles, Scarlatina, and Varicella.—Dr. Richard Klein uses the following to allay itching:

Lanolini anhyd. --------- ℥iss
Vaselin. ----------------- ℥ss
Aquæ dest. --------------- ʒv—M.

S.—Rub parts every 3 hours.—*Therap. Monatshefte.*

Non-bitter Quinine.—(*Journal de Méd. de Paris*):

Quinine sulph. ----------gr xv
Acid. sulph. dil.----------m xv
Spr. menth. pip.-------- ʒiiss
Sol. saccharin. saturat. -- ʒv
Aquæ dest.--------------- ℥vi—M

—*Medical News.*

Hemorrhoids:

Cocaine hydrochlorate---gr xv
Morphine sulphate-------gr iv
Atropine sulphate--------gr iii
Tannin-------------------gr xv
Vaseline----------------- ℥i

S.—Apply within the anus.—*Union Médicale.*

A Skin Tonic.—The following is said to be an excellent cosmetic wash for the face:

Spirit of ammonia
Spirit of camphor--āā 1 ounce
Coarse salt--------------2½ ounces
Boiling water----------1 pint

These are thoroughly mixed, and when the solution is cold, three ounces of alcohol should be added. It is to be well shaken before being used.—*Medical Record.*

Baldness.—Whitla (*Therapeutic Review*), advises:

Pilocarp. hydrochlorate--gr v
Otto of rose----------------m viii
Oil of rosemary -------- ʒiv
Liniment of cantharides- ʒiv
Glycerine---------------- ℥i
Oil of sweet almonds --- ℥ii
Spirit of camphor-------- ℥iii—M

S.—To be rubbed well into the scalp night and morning.—*Times and Register.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., Sacramento, Cal.

Mortality for December.—The deaths registered in 108 town districts of the State during the month of December, in a population of 818,839, correspond to an annual rate of 14.37 a thousand, the total mortality having been 1167. 94 deaths were due to zymotic diseases, giving an annual rate of 1.22 a thousand. Of these, 27 were due to diphtheria, 14 to cholera infantum, 24 to typhoid fever, 14 to diarrhea and dysentery, 3 to cerebro-spinal fever, 9 to scarlet fever, 2 to whooping cough, 16 to croup, and none to remittent and intermittent fevers. 380 deaths resulted from diseases of the respiratory organs, giving an annual rate of 5.52 a thousand. Of these 189 were due to consumption, 134 to pneumonia, 51 to bronchitis and 6 to pulmonary congestion; the rate being for consumption and pneumonia 2.76 and 1.96 respectively. 100 deaths resulted from diseases of the heart. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 563,000, was 18.12 a thousand. The highest rate for the month occurring in cities having a population of 10.000 or more inhabitants, was reported from San Jose, the lowest from Fresno.

Cholera.—Considering the continuance of cholera in China, Japan, India, Persia, Russia, Austria, Hungary, France, Netherlands, and the German Empire during the winter months, it would be little short of a miracle if America will escape a visitation during the approaching summer season. The *Sanitary Record* but echoes the views of the best sanitary authorities all over the American continent when it advises all should recognize that "cholera may be here soon," and that "our country has never been in greater danger of an invasion of cholera." The same authority informs us there is every probability that spring will witness a great revival of the European epidemic, and before many months we may have the pestilential exotic knocking at our doors. The report recently published, of the committee of the Chamber of Commerce of New York City, shows the quarantine at that port to be defective in many important particulars; and while it is to be hoped proper remedies will be applied in the interim before spring, the fact is potent that interior States will not be able to depend on seaboard quarantine defenses for protection. It cannot be to often reiterated that cholera is a filth disease, scourging the users of impure water and those who dwell in filthy places. A rigid house to house inspection should at once be enforced by each board of health, and finished before the advent of warmer weather. On January 26th and 27th a general meeting of the various boards of health of Ohio will be held in Columbus, at which the whole question of cholera will be discussed. The following is the programme, and the transactions, when published, will no doubt be of general interest: (1) Water supplies as carriers of cholera. (2) The cholera bacillus. (3) The disposal of the cholera dead. (4) Practical suggestions on cholera. (5) Municipal cleanliness and its relation to cholera. (6) The diagnosis of cholera. (7) Local quarantine against cholera. (8) The State's duty in preventing the introduction and spread of cholera. (9) The immigrant as a factor in the introduction of cholera.

Small-Pox.—In the last issue of THE MEDICAL TIMES it was stated that many foci of small-pox existed in several parts of the state, and it was urged that a general vaccination of the people should be offered by physicians. Since then this disease has appeared in San Francisco, Sacramento, Santa Marguerito, San Luis Obispo and other localities, and the indications point to an epidemic visitation before the close of the winter. On vaccination and revaccination depends our safety; and as no physician is justified in practising his profession without giving his patrons the benefit of every known means for the prevention of disease and the preservation of their lives, this simple, safe, inexpensive and reliable measure should be persistently urged upon all who are unprotected.

METEOROLOGY.

Summary for December.—*Temperature.*—The normal temperature of the State for December is 52.9°, and the mean or average temperature for December, 1892, was 47.0°, a departure from the normal of −2.7°. The highest monthly mean was 55.9°, at Duarte; and the lowest 29.3°, at Susanville. The maximum temperature was 88°, at Duarte; the minimum temperature was 10°, at Susanville and Tehachapi. The greatest monthly range was 60°, at Bakersfield; and the least 20°, at Point Reyes light-house.

Rainfall.—The normal precipitation for the State for December was 4.42 inches, while the average for December, 1892, was 5.93 inches, showing a departure of +1.51 inches. The greatest monthly precipitation was 24.98 inches, at Edmonton; and the least none, at the Needles. The prevailing winds were from a westerly direction. There was a hail storm on the 3d and a thunder storm on the 25th; with frost in some portion of the State on each day of the month.

Unusual Features.—The unusual phenomena were the heavy wind and rain storms that swept over the State on the 1st and 3d and on the 21st, 22d, 23d, 24th, and 25th, doing considerable damage to the orange crop and flooding low lands along the rivers by numerous breaks in the levees at various points.—JAMES A. BARWICK, Director California Weather Service.

California—Tabular Statement for December, 1892.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	51.5	80.0	34.0	------	------	------	----	8.99	------	----	----	----	N. E.	Southern Pacific Company.
Berkeley......... "	48 1	62.0	35.0	54.9	44.6	10.3	11	6.64	81.0	13	6	12	N.	Obs. University of California.
Colfax........... "	42.7	69.0	30.0	------	------	------	----	16.95	------	----	----	----	N.E.	Southern Pacific Company.
Eureka........... "	46.6	65.0	31.0	52.9	40.2	12.7	13	6.55	91.0	13	6	12	N.	Weather Bureau Dept. Agr.
Fresno........... "	47.4	70.0	27.0	55.4	39.4	16.0	8	2.56	80.0	13	6	12	N.W.	" " "
Keeler........... "	41.7	63.0	24.0	51.0	32.4	18.6	1	0.54	50.0	20	6	5	N.W.	" " "
Los Angeles.... "	54.0	81.0	35.0	63.7	45.1	18.6	6	4.18	------	18	8	5	W.	" " "
Monterey .... "	53.2	66.0	30.0	------	------	------	----	3.04	------	----	----	----	S.	Southern Pacific Company.
Napa........... .. "	49.7	62.0	31.0	56.7	42.6	14.1	10	8.34	76.0	17	4	10	N.	Station Napa Insane Asylum.
Oakland......... "	49.6	63.0	34.0	56.0	42 0	14.0	10	6.45	91.0	17	3	11	S.W.	Chabot Observatory.
Paso Robles.... "	44.9	68.0	21.0	------	------	------	----	5.02	------	----	----	----	S.	Southern Pacific Company.
Red Bluff....... "	48.0	67.0	28.0	55.2	39.9	15.3	11	8.21	75.0	18	5	8	N.W.	Weather Bureau Dept. Agr.
Sacramento. ... "	48.2	64.0	26.0	55.3	41.2	14.1	9	4.90	80.0	15	7	9	S.E.	" " "
San Bernardino "	50.5	77.0	26.0	60.9	40 0	20.9	5	2.23	62.0	20	6	5	N.	A. K. Johnson, M. D
San Diego....... "	54.2	71.0	36.0	63.0	45.5	17.5	5	0.69	71.0	20	3	8	N.E.	Weather Bureau Dept. Agr.
San Francisco.. "	51.0	64.0	38.0	56.4	45.8	10.6	10	5.08	73.0	14	6	11	S.E.	" " "
Santa Barbara.. "	54.4	76.0	38.0	62.5	46.3	16.2	6	6.66	71.0	20	4	7	W.	Hugh D. Vail.
Santa Cruz...... "	49.7	65.0	31.0	------	------	------	6	7.15	------	17	13	11	S.W.	W. R. Springer.
Yuma...........A. T.	53.0	79 0	28.0	66.1	39.8	26.3	1	T.	------	28	3	0	N.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: FEBRUARY, 1893.

THE THIRTIETH SESSION OF THE LEGISLATURE.

No. 1.

The thirtieth session of the Legislature, commencing on January 2, 1893, has even surpassed previous years in its fecundity in proposed enactments. The bills so far introduced run well up into the hundreds, and there is no sign of cessation. The profession is represented in the Assembly by DR. W. P. MATTHEWS, of Tehama, and DR. D. P. DURST, of Sutter, and in the Senate by DR. N. MARTIN, of Placer. The following bills are of interest to the profession:

Assembly Bill 14, providing for the appointment of a State Sanitary Inspector, makes its third appearance before the Legislature. This bill is a good one, and would, if adopted, materially assist the work of the State Board of Health. Assembly Bill 15 (S. B. 113) appropriates $50,000 for use by the State Board of Health in preventing the introduction of epidemic diseases. The money will not be used unless in case of emergency, and the usual methods for auditing expenditures are provided. Assembly Bill 19 (S. B. 276), providing seats for the use of female employes in mercantile and manufacturing pursuits, has merit to commend it, but in practice such enactments have always proved inoperative. Assembly Bill 30 amends an act for the formation of sanitary districts in one of the sections relating to elections. Assembly Bill 37 amends Section 397 of the Penal Code, making it a felony to sell or furnish intoxicants to Indians. Assembly Bill 53 amends the act establishing the State Reform School at Whittier, by changing the name to "Whittier State School"; providing that a commitment by a Justice of the Peace or Police Judge shall only be executed when approved by a Judge of the Superior Court; enabling the Board to grant an honorable dismissal to inmates, and creating the parole system. Under the latter, certificates of "conditional dismissal and parole" are issued that will enable the inmate to be under supervision outside the institution, to which he can be returned in case of misconduct. A new section is added that will allow the discharge of "incorrigibles"—a wise provision, as it is no use trying to reform those susceptible of improvement when the hopelessly bad can remain to contaminate them. Other sections are amended so as to permit of suspension of sentence and dismissal of judgment; the object of the amendments being to remove as far as possible the penal character of the institution that the inmate, in after life, shall, as far as possible, be free from any stigma that may attach thereto. Assembly Bill 94 (S. B. 38) appropriates the sum of $150 *per annum* for each indigent person afflicted with incurable disease, wholly supported by some corporate institution. A record of the disbursements is to be kept, and no person will be considered indigent who, from other sources, receives $18 per month.

Assembly Bill 71 amends the act to regulate the practice of dentistry by providing that offenders "*shall,*" not "may," be fined, and giving one-half of the penalty collected to the informer. Assembly Bill 72 (S. B. 5) provides for the selection, condemnation, and purchase of a suitable site for all the State offices and institutions now in San Francisco, except the medical, dental, and pharmaceutical departments of the University. The amount named is $300,000. Assembly Bill 242 (S. B. 234) corrects this omission, and appropriates $250,000 for "the erection of buildings grouped together" for the use of all the affiliated colleges, including the Hastings College of Law, which therefore stands to win, whichever measure is carried. It is very likely that the latter measure will pass, especially as it has been endorsed by the Regents, and because it includes all the departments and supplies a want that can only be met in this manner. Assembly Bill 90 (S. B. 71) is to prevent deception in the manufacture and sale of butter and cheese, while Senate Bill 111 relates only to the sale of imitation butter. The former measure is lengthy. It provides for the marking, in good big type, of all imitation butter and cheese, without which marks it shall be a misdemeanor to make, convey, sell, dispense (in hotels)—and, we hope, boarding houses—any of this stuff. It must, further, not be used in any penal or charitable institution receiving assistance from the State. A State Dairy Bureau is also created. The Senate Bill briefly disposes of the subject by providing a substantial fine for selling the article under any circumstances. Senate Bills 117 and 358 relate to the adulteration of olive oil, the latter amending the act passed in 1891. Bill 117 provides that the name and place of the manufacturer shall be placed on the label, a copy of which, with an affidavit of the genuineness of the product, must be filed with the State Board of Horticulture. Bill 358 enlarges the original act by including all grades of oil designed for human consumption, no matter how named. Assembly Bill 100 (S. B. 119) changes the name of the "Mendocino State Asylum for the Insane" to that of "Mendocino Asylum." Assembly Bill 99 (S. B. 120) appropriates money for improvements at the Mendocino Asylum. Assembly Bill 102 (S. B. 121) increases the salary of the Secretary of this asylum from $600 to $1,200; that of the Medical Superintendent from $3,000 to $3,500; and that of the Assistant Physician from $2,000 to $2,500. Assembly Bills 192, 159 (S. B. 144), and 266 appropriate money for the Napa Asylum. Assembly Bills 319 (S. B. 320) and 340 (S. B. 319) appropriate money for the asylum at Agnews. Senate Bills 201, 202, 203, 204, 205, and 206 appropriate money for the asylum at Stockton. Among the sums we notice $15,000 for a residence for the Medical Superintendent at Stockton, and $16,000 for "three cottages" at Napa, to be used as residences by the Superintendent and two assistant physicians. We have no doubt that this contrast was unintentional, but under the circumstances the modesty of the Napa appropriation is, at least, unfortunate.

Assembly Bill 105 (S. B. 13) creates a State Board of Funeral Directors. This bill was unsuccessful at the last session, but this time its prospects are better. It is at least unobjectionable, and so far the principal objection seems to proceed from a company that has almost a monopoly in first-class coffins. Assembly Bills 229 and 250 (S. B. 220) amend Sec. 374 of the Penal Code relating to the pollution of water. They include water-closets, privies, and "bathing" as sources of pollution. If these bills pass we can put the local sanitary authorities in the way of some effective missionary work. Assembly Bills 68 (S. B. 76), 314 (S. B. 306), and Senate Bill 343, are to amend an act to regulate the practice of pharmacy. A. B. 68 proposes that each pharmacist and each assistant pharmacist shall pay to the State Board $2.00 and $1.00 respectively *per annum*. A. B. 314 amends to include as "practising pharmacists" those having had five years' experience in compounding, etc., prior to the passage of the act. S. B. 343 makes this period seven years and adds the word "managing" to "conducting," as in the original. It also defines the date of the approval of the bill as that on which persons owning pharmacies could thereby be considered "practising pharmacists." Assembly Bill 232 (S. B. 207) is the new medical bill. This bill has been modified so as to eliminate opposition from every possible source. It is legislation for the future, not for the present, and its results will be better seen in ten years than in two. It is difficult to see on what grounds this measure can be opposed by any physician honestly interested in the cause of higher education and a higher standard in medicine. An intelligent citizen can hardly oppose a measure intended to guarantee himself and family against ignorance and fraud, to which he can become a victim, unawares. It is a liberal measure and one that we can all honestly and heartily support. We trust that it will pass and that California, that in former years led the way, may not now be distanced in the race.

Assembly Bill 240 adds a new section to the Penal Code, providing that any person who lewdly manipulates the sexual organs of a minor child (under 14 years), or allows such child to manipulate the organs of the person allowing, or of any other person, is guilty of a misdemeanor. The maximum punishment is three years, or $3,000. Assembly Bill 286 (S. B. 44) amends Section 635 of the Penal Code, to include "sawdust and shavings" as substances deleterious to fish, and not allowed to pass into any water. The section, as it stood, expressly provided that sawdust was not deleterious. There are several bills relating to sanitary matters. Assembly Bill 80 (S. B. 245) provides for the appointment of a Health Officer in every unincorporated town of 500 or more inhabitants, who shall have all the powers of a Board of Health. When there are three such officers in a county they shall constitute a County Board of Health. Assembly Bill 203 (S. B. 182) amends Section 3009 of the Political Code, so that the six Health Inspectors of the San Francisco Board of Health shall be practical plumbers, who have passed an examination before the Board. Senate Bill 7 authorizes Boards of Health, or Health Officers, where there is no Board of Health, in cities of less than 100,000 inhabitants, to appoint not less than one nor more than three Inspectors of Plumbing and Drainage. In cities of over 100,000 inhabitants the limit is five Inspectors. The duties of these Inspectors are those usually prescribed. Senate Bill 8 provides for the appointment of Health and Market Inspectors in cities of 50,000 or more inhabitants. In cities of 100,000 inhabitants, two Inspectors are allowed, and one additional for each 35,000 inhabitants. In these cities a Market Inspector is also provided, and an additional one is allowed for each 100,000, or fractional part in excess of the original figure. Assembly Bill 354 (S. B. 247) amends Section 2978 of the Political Code by making the State Board of Health consist of nine members, instead of seven, as at present. Of the nine members, three are from the State Medical Society, three from the Homeopathic Society, and three from the Eclectic Society. Section 3005 is amended so that the San Francisco Board of Health shall consist of six members—two from the County Medical Society, and two each from the local Homeopathic and Eclectic Societies. The San Francisco County Hospital is to be given four visiting physicians and four visiting surgeons, each incorporated and established medical college to nominate one physician and one surgeon. Through some error this bill, in the Senate, which has been introduced "by request," includes an argument, or arguments, in its favor, which makes it present rather a peculiar appearance.

Assembly Bill 361 (S. B. 368) regulates the collection and disposition of all garbage and offal, except the contents of privy vaults and manure. The privilege of removing this is to be let each year to the highest cash bidder, and must be removed between the hours of 6 A. M. and 6 P. M. When taken away, the garbage is to be subjected to a fire heat of not less than 212° F. Assembly Bill 362 (S. B. 81) adds a new section to the Penal Code, prohibiting the sale or use of opium, except on a physician's prescription. A record must be kept of the quantity sold, and of the name and address of the purchaser, both by wholesale and retail pharmacists. The penalty for violation of this act is imprisonment and fine, the maximum being one year and $5,000. This act, or a measure very similar to it, has been tried in San Francisco, but unfortunately can be easily evaded. Assembly Bill 398 provides that any person or corporation furnishing or erecting unsuitable or improper scaffolding, that will not give proper protection to life and limb, shall be guilty of a misdemeanor. Any staging suspended more than twenty feet above the ground or floor shall be deemed unsuitable unless the same shall have a safety rail thirty-four inches high around the outside and ends, and the stage is to be so braced that it will not sway from the building. Senate Bill 6 appropriates $25,000 for the purchase of a site and the erection of a building under the direction of the State Board of Health, to be known as the "State Leper Hospital," in which all lepers found within the State shall be cared for. This act has already failed to pass on more than one occasion, but its need is none the less apparent, and the economy of the measure to the State as a whole can easily be shown.

Senate Bill 59 amends Section 267 of the Penal Code, relating to the prostitution of females under eighteen years of age, by including in the offence any one aiding or assisting in the act, and by extending its scope to include the mere having, or permitting others to have, sexual intercourse with such female. The penalty is increased from 5 to 10 years, and the fine from $1,000 to $2,000; and both may be imposed. Senate Bill 417 provides for the care and treatment of inebriates, acute insane persons, or victims of narcotics, by allowing superior judges, police judges, or justices of the peace, to sentence such persons to a public or private institution for their cure, provided the person's friends, medical examiners, or any fraternal society so request. Senate Bill 388 amends Sections 2212 and 2218 of the Political Code, by providing that the Governor shall appoint in every county and city in the State two physicians, who shall examine all insane persons within the county. They shall hold office for four years. In cities of over 200,000 inhabitants four physicians shall be appointed. According to the present order of things the judge summons whoever he sees fit, without much regard to qualification; the results of which indiscriminate selection can be learned at any of our asylums. If this bill did not railroad incompetent politicians into office it would be a good measure. Section 2218 is amended so that the insane person is to be conveyed to the asylum by a person to be appointed by the medical examiners, and of the same sex as the insane person. An assistant can be appointed when more than one person is required. The latter part of the bill is very commendable and will prevent some of the scandals to which we have already alluded in these columns.

NATIONAL SANITATION.

We give in another column the text of a bill, "Granting additional quarantine powers and imposing additional duties upon the Secretary of the Treasury and the Marine Hospital Service, and for other purposes," which passed the Senate on January 10th, and which has been recommended to the House by its proper committee.

The word "quarantine," as it appears in the bill, is evidently a misnomer, and carries with it an idea of detention that is not contemplated in the provisions of the measure. It will be seen by a careful perusal of the bill that "National Sanitation" would not only fit the text better, but also give to the country a feeling of security which the old term never gave. The powers delegated by this bill to the Secretary of the Treasury and its Medical Bureau, the Marine Hospital Service, are greater than have heretofore been granted, and appear to cover the entire subject of ship hygiene, including cargo, passengers, and crew, from their condition at the port of departure until the vessel is safely riding free from infection in its port of destination, and its cargo, passengers, and crew properly cared for. Not only that, but the old question of "State Rights" seems to be broken down, and the General Government asserts its authority to step in and prevent, if possible, the spread of contagious and infectious diseases from one State into another. The bill also limits immigration, in whole or in part, at the discretion of the President, and carries with it an appropriation of one million dollars. There appears, therefore, to be nothing wanting but its passage by the House and the signature of the President to give the country a sanitary act that will cover all the requirements necessary, so far as Congressional enactment can provide, to make a good fight against the entrance of cholera or other contagious or infectious diseases, and to stamp them out should an entrance be effected. Delay, or serious crippling of the bill in the House, may be fatal to the work at hand. Much, very much, must be done by the Government in the way of perfecting our National and State defenses at the various ports, to say nothing of the sanitary measures necessary to be promulgated for adoption at the port of departure and upon the voyage.

Briefly stated, there are now on the Pacific coast partially equipped national quarantine (refuge or sanitary) stations at Diamond Point, in the Straits of Fuca, near Port Townsend, Washington; San Francisco, and San Diego, California. On the Atlantic coast, at the Delaware breakwater, protecting Wilmington, New Castle, and Lewes, Del.; Philadelphia and Chester, Pa.; Camden, N. J., and the smaller towns upon the bay and Delaware river. At Cape Charles (Chesapeake Bay), protecting Norfolk, Hampton, Old Point Comfort (Fort Monroe), Richmond, Va.; Washington, D. C., and Baltimore, Md. At Black Beard Island (Sapelo Sound), protecting the cities and towns upon the coast of South Carolina, Georgia, and Florida. At Chandeleur Island, Gulf of Mexico, protecting gulf ports, including New Orleans, La.; at Dry Tortugas, protecting Key West, Fla., and at Tybel Island, protecting Savannah, Ga. Besides these stations the government has a sanitary camp on Sandy Hook, N. J., known as "Camp Low"—built during the appearance of cholera in New York harbor and city last fall, and another in Florida, about forty miles north of Jacksonville, on the south side of St. Mary's river, known as "Camp Perry," during the yellow fever epidemic of 1888. These comprise about all the preparations of the General Government at the present time, but additional sanitary stations will be established at points of danger when authority for the same shall have been obtained from Congress.

The states and municipalities are, with few exceptions, but poorly provided with proper facilities for the care of infected vessels, their cargoes, passengers, and crews. Louisiana has quite a complete equipment at the mouth of the Mississippi. Florida has a fairly good one on an island near Tampa. Charleston, S. C., is provided with modern appliances, and New York is rapidly improving its facilities for taking care of vessels in the lower bay. It has several large barrack buildings on Hoffman's Island for accommodating passengers not suffering with disease. These barracks have been put in fine sanitary condition, since the criticisms made upon them last fall. Below Hoffman's Island, on Swinburne Island, are located a large number of hospital buildings, arranged upon the pavilion plan, and separated so as to accommodate different groups of patients; these are thoroughly equipped for the care of the sick. A large floating hospital is now being constructed, upon which it is proposed to place cholera patients in case of another visitation. Fire Island has been purchased by the State, and active preparations are going on to make it a model sanitary camp. Boston is, perhaps, the poorest prepared city of importance on the Atlantic coast for disinfecting ships or caring for passengers and crews.

Under the provisions of the bill now before Congress, the National Government and the States are to act in conjunction, and under certain contingencies the National Government is to assume charge of all sanitary measures. This, we fear, is an unwise provision, as it may give rise to endless confusion and misunderstanding of the bill. As the time is too short at this session of Congress to make a complete change of management in all State and municipal quarantines, by turning them over to the General Government by purchase, it appeared to be the only plan feasible at this juncture.

Much discussion in the Senate occurred over the provision in the bill authorizing the Secretary of the Treasury to make rules and regulations where none existed under State or municipal authority, if, in his opinion, they were necessary; and to make additional rules and regulations, even where State and municipal authorities had established them, if he deemed it necessary to do so; and, further, to execute and enforce the same in case the State or municipal authorities fail or refuse to do so. It is this provision in the bill that will find many enemies in the House, and possibly defeat the measure. The act of 1890 is, however, in force, and if the present bill fails to pass and cholera actually enters any port or place in the United States, its provisions will be effective, so far as the authority of the Government to take entire charge is concerned. This act is entitled, "An act to prevent the introduction of contagious diseases from one State to another, and for the punishment of certain offenses." It provides that whenever it shall be made to appear to the satisfaction of the President that cholera, yellow fever, small-pox, or plague exists in any State or Territory, or in the District of Columbia, and there is danger of the spread of such disease, he is authorized to cause the Secretary of the Treasury to promulgate such rules and regulations as may be necessary to prevent the spread of such disease from one State or Territory into another, and to employ such inspectors and other persons as may be necessary to execute such regulations. These rules and regulations shall be prepared by the Supervising Surgeon-General of the Marine Hospital Service, under the direction of the Secretary of the Treasury. Wilful violation of such rules and regulations shall be a misdemeanor, punishable, on conviction, by a fine of not more than $500, or imprisonment for not more than two years, or both, in the discretion of the Court. This provision also applies to any officer or agent employed under this act, the punishment being a fine of not more than $300, or imprisonment for not more than one year, or both, in the discretion of the Court. Any common carrier, or officer, or agent, or employe of any common carrier is also brought under the provisions of the law, the penalty being a fine of not more than $500, or imprisonment for not more than two years, or both, in the discretion of the Court.

The quarantine laws referred to in the above act are those of April 29, 1878, and of 1888. The act of 1878 provides that no vessel or vehicle conveying any person or persons, merchandise, or animals, affected with any contagious or infectious disease, shall enter any port of the United States contrary to the laws of any State, or the regulations prescribed in this act. It requires the U. S. consuls to report by cable the departure from any foreign infected or suspected port, of any vessel bound to the United States, and also report weekly the sanitary condition of the port at which they are respectively stationed. The Secretary of the Treasury, through the Surgeon-General of the Marine Hospital Service, is to frame all needful rules and regulations, and to enforce the same, to prevent the introduction of contagious and infectious diseases into the United States. The officers of the Marine Hospital Service and customs officers are required to aid in enforcing said rules and regulations. The Surgeon-General is to notify the proper municipal and State health officers, at threatened port of destination, of the approach of infected vessels, and prepare weekly abstracts of the consular sanitary reports, and other pertinent information; State and municipal authorities may have one of their own officers appointed as U. S. Inspector if desired. This act closes with a proviso "that there shall be no interference, in any manner, with any laws or regulations as they now exist or may hereafter be adopted under State laws."

The act of 1888 provides that no person, master, pilot, or owner of a vessel shall enter any port of the United States in violation of the act of 1878 and the regulations framed under it, under penalty of a fine of $300 and imprisonment for one month, either or both fine and imprisonment. It also establishes the eight quarantine stations already referred to. Under these acts the power of the government to frame sanitary rules and regulations are clearly expressed, and taken with the law of 1890, and regulations now in force, the government will be able to give considerable protection to the country without the passage of the bill now before Congress.

Circulars have been issued from time to time, prescribing rules and regulations: In December, 1882, for the prevention of the introduction of small-pox; in April, 1884, against importation of rags from Europe; June, 1884, requiring vessels of the revenue cutter service to act as coast guard; July, 1884, to prevent invasion of cholera and manner of disinfecting rags; October, 1885, for maintenance of inspector on northern frontier against small-pox; October, 1885, treatment of foul ships; December, 1889, to prevent introduction of leprosy; July, 1892, forbids entry of vessels without certificate of disinfection; August, 1892, requires certificate of disinfection of baggage of immigrants; and Sepber, 1892, limiting immigration temporarily, and establishing refuge camp on Sandy Hook, N. J.

Although cholera has been threatening the United States on both its eastern and western seaboards for several years, it required the actual presence of the disease in New York harbor and city to arouse the people to demand some action by Congress to prevent a recurrence of last year's experience. The bill which passed the Senate a few days ago, was prepared by Senator Isham Harris, of Tennessee, who is chairman of the Committee on Epidemic Diseases. He has had more experience in framing health bills, and has given the subject of national sanitation more study, during the past ten years, than all the other members of the Senate together.

The rules and regulations to be enforced under this act have already been prepared by the Surgeon-General of the Marine Hospital Service, in anticipation of its passage, and in order to save time. This Service is the Medical Bureau of the Treasury Department, and is charged by law to care for sick and disabled seamen of the merchant marine, to which has been added the control of national quarantine sanitation. It is composed of surgeons, passed assistant surgeons, and assistant surgeons, who have to undergo a very rigid professional examination, medical, surgical, and hygienic, including bacteriology, and the sanitary management of infected vessels, cargoes, passengers, and crews.

"Quarantine," as at present understood, means the immediate removal of all passengers and crews (sick and well) from an infected vessel. The removal also, if necessary, of its cargo or ballast, for thorough cleansing and disinfecting in every part, and its release as soon as free from all disease-producing fomtes or germs. The housing of the well in small groups in airy, clean, and comfortable quarters, where they can be carefully inspected at least twice daily—a bath and complete change of clothing, and thorough disinfection of all baggage not being forgotten. The sick are to be removed as far as practicable from the well, and also placed in small groups, particularly in the case of cholera, in order that better care can be taken of them. Their medical treatment is consigned to an efficient and trustworthy officer.

The object of "quarantine," so-called, is two-fold: first to prevent the introduction of contagious and infectious diseases into the country; this by the most approved methods of sanitation. Second, to return the infected vessel, clean and pure, to duty as soon as practicable; this by intelligent and thorough cleansing and disinfection.

[Since the foregoing was put in type we learn that Mr. Cockran, of New York, offered the following amendment to Sec. 3, which was agreed to, after much discussion. It follows the words "United States" at the close of that section: "*Provided,* That nothing in this act contained shall be construed to authorize any Federal officer to relax, modify, or suspend any rules, precautions, or regulations, which may have been, or which may hereafter be, adopted by State or municipal authorities for the exclusion of contagious or infectious diseases from any port of the United States, or to permit the entering or discharge of any vessel in any port of the United States where quarantine regulations have been established by State or municipal authority, until such vessel shall have complied with such regulations."

This amendment places the General Government subordinate to State authority, and revives the "State Rights" doctrine. It is expected by Mr. Rayner, of Maryland, and other friends of the bill, that a conference committee of the two houses will be able to modify this proviso if not eliminate it, and agree upon a compromise measure which will permit the Federal authorities to be supreme under certain contingencies; without such an agreement the act will be of little benefit.]

NOTES.

Dr. W. R. Cluness.

Dr. W. R. Cluness, who for almost thirty years has practised in Sacramento, has permanently removed to San Francisco. The doctor's removal is a distinct loss to the community with which he has been so long identified and in which for so many years he has held a most extensive practice. It will be a still greater loss to the local profession by whom his scholarly attainments were fully appreciated. As a citizen, the doctor has shown himself enterprising and public spirited at all times. His connection with THE MEDICAL TIMES will be maintained, and in wishing him success in his new field of usefulness, we anticipate on our part many years of that active assistance that has, in the past, always been so freely rendered. His son, Dr. W. R. Cluness, Jr., will occupy the field from which his father has removed.

The Banquet of the California Academy of Medicine.

The second annual banquet of the California Academy of Medicine was held at the California Hotel, on January 18. About fifty members and a few invited guests were present. After disposing of an excellent bill of fare, several toasts were given and responded to. Replying to the toast of "the Academy of Medicine," Dr. B. R. Swan traced its evolution, slow but certain, duriug many years from the old San Francisco Medical Benevolent Society. On this occasion there were present, including the speaker, just three members of the original society. Under the title "Academy of Medicine," the society had entered upon a new era of usefulness and prosperity. It now had a home, the nucleus of a pathological museum, and a very fair library. The speaker hoped in the future to include in its membership all on the Pacific coast that were interested in the cause of true medical science. In replying to the sentiment "Reminiscences," Dr. James Simpson, who was in a happy vein, alluded to some of his earlier and some of his later experiences, all of which were fully appreciated by his audience. Several other toasts, some humorous, some serious, were proposed and responded to. These annual gatherings serve as mile-stones on the path of the Academy, and no doubt there will be many of them in future years.

UNITED STATES QUARANTINE BILL.

A Bill Granting Additional Quarantine Powers and Imposing Additional Duties upon the Secretary of the Treasury and the Marine Hospital Service, and for Other Purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any merchant ship or other vessel from any foreign port or place to enter any port of the United States except in accordance with the provisions of this act and with such rules and regulations of State and municipal health authorities as may be made in pursuance of, or consistent with, this act; and any such vessel which shall enter, or attempt to enter, a port of the United States in violation thereof shall forfeit to the United States a sum, to be awarded in the discretion of the court, not exceeding five thousand dollars, which shall be a lien upon said vessel, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States District Attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

Sec. 2. That any vessel at any foreign port clearing for any port or place in the United States shall be required to obtain from the consul, vice-consul, or other consular officer of the United States at the port of departure, or from the medical officer where such officer has been detailed by the President for that purpose, a bill of health, in duplicate, in the form prescribed by the Secretary of the Treasury, setting forth the sanitary history and condition of said vessel, and that it has in all respects complied with the rules and regulations in such cases prescribed for securing the best sanitary condition of the said vessel, its cargo, passengers and crew; and said consular or medical officer is required, before granting such duplicate bill of health, to be satisfied that the matters and things therein stated are true; and for his services in that behalf he shall be entitled to demand and receive such fees as shall by lawful regulation be allowed, to be accounted for as is required in other cases.

The President, in his discretion, is authorized to detail any medical officer of the Government to serve in the office of the consul at any foreign port for the purpose of furnishing information and making the inspection and giving the bills of health hereinbefore mentioned. Any vessel clearing and sailing from any such port without such bill of health, and entering any port of the United States, shall forfeit to the United States not more than five thousand dollars, the the amount to be determined by the court, which shall be a lien on the same, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States District Attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

Sec. 3. That the Supervising Surgeon-General of the Marine Hospital Service shall, immediately after this Act takes effect, examine the quarantine regulations of all State and municipal boards of health, and shall coöperate with and aid State and municipal boards of health in the execution and enforcement of the rules and regulations of such boards and in the execution and enforcement of the rules and regulations made by the Secretary of the Treasury to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, and into one State or Territory, or District of Columbia from another State or Territory, or District of Columbia; and at such ports and places within the United States as have no quarantine regulations under State or municipal authority, where such regulations are, in the opinion of the Secretary of the Treasury, necessary to prevent introduction of contagious or infectious diseases into the United States from foreign countries, or into one State from another, and at such ports and places within the United States where quarantine regulations exist under the authority of the State or municipality which, in the opinion of the Secretary of the Treasury, are not sufficient to prevent the introduction of such diseases into the United States, or into one State or Territory, or District of Columbia, from another State or Territory, or the District of Columbia, the Secretary of the Treasury, shall, if in his judgment it is necessary and proper, make such additional rules and regulations as are necessary to prevent the introduction of such diseases into the United States from foreign countries, or into one State from another, and when said rules and regulations have been made by the Secretary, they shall be promulgated by him and enforced by the sanitary authorities of the States and municipalities, where the State or municipal health authorities will undertake to execute and enforce them; but if the State or municipal authorities shall fail or refuse to enforce said rules and regulations the President shall execute and enforce the same and may detail officers or appoint officers for that purpose. The Secretary of the Treasury shall make such rules and regulations as are authorized by the laws of the United States and necessary to be observed by vessels at the port of departure and on the voyage, where such vessels sail from any foreign port or place at which contagious or infectious diseases exist, or from which the President has reason to believe that infected articles of merchandise are being shipped to any port or place in the United States, to secure the best sanitary condition of such vessel, her cargo, passengers, and crew, which shall be published and communicated to and enforced by the consular officers of the United States. None of the penalties herein imposed shall attach to any vessel or owner or officer thereof until a copy of this act, with the rules and regulations made in pursuance thereof, has been posted up in the office of the consul or other consular officer of the United States for ten days, in the port from which said vessel sailed; and the certificate of such consul or consular officer over his official signature shall be competent evidence of such posting in any court of the United States.

Sec. 4. That it shall be the duty of the Marine Hospital Service, under the direction of the Secretary of the Treasury, to perform all the duties in respect to quarantine and quarantine regulations which are provided for by this act, and to obtain information of the sanitary condition of foreign ports and places from which contagious and infectious diseases are or may be imported into the United States, and to this end the consular officer of the United States, at such ports and places as shall be designated by the Secretary of the Treasury, shall make to said Secretary of the Treasury weekly reports of the sanitary condition of the ports and places at which they are respectively stationed, according to such forms as the Secretary of the Treasury shall prescribe; and the Secretary of the Treasury shall also obtain, through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary condition of ports and places within the United States, and shall prepare, publish, and transmit to collectors of customs and to State and municipal health officers and other sanitarians, weekly abstracts of the consular sanitary reports and other pertinent information received by him, and shall also, as far as he may be able, by means of the voluntary coöperation of State and municipal authorities, of public associations, and private persons, procure information relating to the climatic and other conditions affecting the public health, and shall make an annual report of his operations to Congress, with such recommendations as he may deem important to the public interests.

Sec. 5. That the Secretary of the Treasury shall, from time to time issue to the consular officer of the United States and to the medical officers serving at any foreign port, and otherwise make publicly known, the rules and regulations made by him to be used and complied with by vessels in foreign ports, for securing the best sanitary conditions of such vessels, their cargoes, passengers, and crews, before their departure for any port in the United States, and in the course of the voyage; and all such other rules and regulations as shall be observed in the inspection of the same on the arrival thereof at any quarantine station at the port of destination, and for the disinfection and isolation of the same, and the treatment of cargo and persons on board, so as to prevent the introduction of cholera, yellow fever, or other contagious or infectious diseases; and it shall not be lawful for any vessel to enter said port to discharge its cargo, or land its passengers, except upon a certificate of the health officer at such quarantine station certifying that said rules and regulations have in all respects been observed and complied with, as well on his part as on the part of said vessel and its master, in respect to the same and to its cargo, passengers, and crew; and the master of every such vessel shall produce and dedeliver to the collector of customs at said port of entry, together with the other papers of the vessel, the said bills of health required to be obtained from the health officer at the port of entry; and that the bills of health herein prescribed shall be considered as part of the ship's papers, and when duly certified to by the proper consular or other officer of the United States, over his official signature and seal, shall be accepted as evidence of the statements therein contained in any court of the United States.

Sec. 6. That on the arrival of an infected vessel at any port not provided with proper facilities for the treatment of the same, the Secretary of the Treasury may remand said vessel, at its own expense, to the nearest national or other quarantine station, where accommodations and appliances are provided for the necessary disinfection and treatment of the vessel, passengers, and cargo; and after treatment of any infected vessel at a national quarantine station, and after certificate shall have been given by the United States quarantine officer at said station that the vessel, cargo, and passengers are each and all free from infectious disease, or danger of conveying the same, said vessel shall be admitted to entry to any port of the United States named within the certificate. But any port where sufficient quarantine provisions are made by State or local authorities the Secretary of the Treasury may direct vessels bound for said ports to undergo quarantine at said State or local station.

Sec. 7. That whenever it shall be shown to the satisfaction of the President that by reason of the existence of cholera or yellow fever, or other infectious or contagious diseases in any foreign country there is serious danger of the introduction of the same into the United States, and that notwithstanding the quarantine defense this danger is so increased by the introduction of persons or property from such country that the suspension of the right to introduce the same is demanded in the interest of the public health, the President shall have power to prohibit, in whole or in part, the introduction of persons and property from such countries or places as he shall designate and for such period of time as he may deem necessary.

Sec. 8. That there shall be, and hereby is, appropriated out of any moneys in the Treasury not otherwise appropriated, the sum of $1,000,000, to be expended, or so much of the same as may be necessary, from time to time, under the direction of the President and according to his discretion to meet emergencies arising in the execution of the provisions of this Act.

Sec. 9. That whenever the proper authorities of a State shall surrender to the United States the use of the buildings and disinfecting apparatus at a State quarantine station, the Secretary of the Treasury shall be authorized to receive them and pay a reasonable compensation to the State for their use.

Sec. 10. That the act entitled "An act to prevent the introduction of infectious or contagious diseases into the United States, and to establish a national board of health," approved March 3, 1879, be, and the same is hereby, repealed, and the Secretary of the Treasury is directed to obtain possession of any property, furniture, books, papers, or records, belonging to the United States, which are not in the possession of the United States under the Treasury Department, which were formerly in the use of the National Board of Health or any officer or employe thereof.

BANQUET TO DR. W. R. CLUNESS.

For several years past it had been understood that Dr. W. R. Cluness would some day relinquish his practice in this city and remove to San Francisco. An extensive general practice conducted for almost thirty years demands some relaxation from unceasing toil. Dr. Cluness decided that this could only be obtained by cutting loose from all his old associations and towards the close of 1892 he announced that early in the new year he would remove to San Francisco.

The Sacramento Society for Medical Improvement, of which the doctor was one of the founders, determined to mark the occasion by some fitting tribute. For this purpose a committee was appointed and the conclusion reached that a banquet at which the Society, with some of its original members—the doctor's early associates—could meet, would be most suitable. The Sutter Club, to which the Society is indebted for former courtesies, kindly gave the use of their rooms. On Tuesday evening, January 24th, the guests assembled in the parlors of the Club, twenty-one members being present. After discussing the bill of fare, Dr. C. B. Nichols, the chairman of the committee, who presided in the absence of the President of the Society, on behalf of Dr. G. L. Simmons, who was suffering from a severe cold, read the following address that had been prepared at the special request of the committee.

"It will be thirty years next July since the guest of the evening began his professional career in Sacramento. A whole generation has come upon the scene of life's action, and some of the babes for whose safety he passed many a night-vigil are now prominent in Sacramento as matured men and women. During this long peroid of time it has been my good fortune to know him as well as one professional man can know another, and I believe 'no shadow has ever crossed the sunshine of our friendship.' I therefore most earnestly thank the committee for the privilege of first being called upon to express the sentiments of the Society upon his change of residence, which closes the active professional life of Dr. Cluness in Sacramento, and with our cherished organization.

For the encouragement of our young members I wish first to refer to the fact that from the time he came to our city his offices and mine have been located within a stone's throw of each other, and as young practitioners we fought the battle for professional recognition and patronage upon a field already well occupied by older and doubtless wiser heads than ours. To a certain extent we were supposed to inherit the likes and dislikes of older friends, and the small jealousies of pioneer days in medicine—when there appeared to be no community of interests—were often used to influence our actions. Fortunately the gentleman was combined with the physician in the case of Dr. Cluness, who, with rare good nature, at once thrust aside the prejudices of the past and judged of men and events as he found them.

The result, as all know, has been a personal and professional success of the highest character, and this example of good feeling adopted by others, ultimately led to the organization of this Society. For the credit of Sacramento it should be mentioned that the proportion of regular physicians who affiliate with this organization—and through it with the State, National and Foreign societies—is greater than in any other place of equal size in our country. To no one man are we so much indebted for this effort to live up to the grand code of ethics of the American Medical Association as to Dr. Cluness.

On an occasion like this it will also be proper to refer to his work as a public official 'without a salary.' For nearly his whole life here he has held a position of sanitary importance which, in the midst of active labor in other directions, has consumed a vast amount of valuable time. The results of this work may be seen in the freedom of our city from the devastating plague of variola and in numerous papers in our State and City health records. Alas! how few citizens recognize the value of this unpaid labor; or realize the fact that to prevent disease is a more important problem than to master it after it has invaded the human system.

Of the value of association for the discussion of the best methods to battle with disease and death, no one could be more outspoken or enthusiastic than Dr. Cluness. His zeal was never more apparent than at the organization of your Society, and all will attest that ever since, with pen and presence, he was ready to advance the cause of medical discussion and investigation.

And now, what can I say of his long professional life in Sacramento, that is not to all as an open book? The long hours of waiting by the bedside of pain; the irregular times for sleep and meals; the deprivation of social engagements, and the surrendering of family pleasures, have all been his, in common with us all. But when we consider that his chief work has been in that special line which requires the closest and most long-continued 'watching and waiting,' and that his practice in this branch was for years larger than any other practitioner enjoyed in Sacramento, we wonder that he is able to be here to-night to respond to our request to do him honor.

With the fullest appreciation and confidence of his patrons, and to the universal regret of our citizens, he leaves for San Francisco—not for practice, but to escape from the wear and tear of the life of the busy general practitioner, and which sooner or later will undermine the most perfect constitution.

The French Government has ordained that however eminent or healthy a medical man may be, he must retire from their hospital service at sixty years of age. This law has no doubt deprived the government of the services of men of experience and power, but as a rule its effect has been beneficial to the physicians and surgeons concerned, who now attend to their private matters and give places to sons and younger men ever anxious to enter into life's activities. Our friend does not need a French edict to remind him that he has worked very hard, and that as he approaches the sixty-year limit it is wise to conserve his strength and stop the incessant drain upon mind and body involved in the general practice of medicine. The field he will occupy in San Francisco concerns the vital interests of a large and growing company, and we may congratulate the doctor that, in a special medical department, with luxurious surroundings, he will find full scope for his best faculties, and at the same time have sufficient leisure to enjoy life with his family and friends.

In closing, I can but wish that my language were adequate to convey to our guest the feelings of each of our members upon the subject of his separation from our Society. I can only say that we all feel his retirement to be a serious loss to its influence and prosperity. Known as he is throughout the State, almost as well as in our midst, with a mind ripened by scholarly attainments and long experience; with a professional record unstained by affiliation with quackish practices or neglect of the 'Code of Ethics;' with an influence and standing in our community surpassed by none—he carries with him as he leaves the interior to abide by the sea the good wishes of all for his future prosperity.

Gentlemen, I give you the first toast of the evening: 'Our Honored Guest, W. R. Cluness, M. D.'

A wise physician, skilled, our wounds to heal,
Is more than armies to the public weal.

The Chairman concluded by proposing Dr. Cluness' health, which was drank with enthusiasm.

DR. CLUNESS, in replying, said: After a residence of nearly 30 years amongst you it is exceedingly gratifying to be the recipient of this evidence of your esteem and good will, and, I assure you, recollections of my association with the members of this Society will be amongst the most pleasant of the remainder of my life. It will always be a source of pleasure to me to recall the origin and early history of our organization, and to recount the many and profitable evenings spent together; and I am free to confess that duty to myself and family has been the principal factor which ultimately impelled me to remove from Sacramento and its many happy associations, chief of which I regard the Sacramento Society for Medical Improvement.

For 25 years we have been accustomed to meet with much regularity, interruptions occurring only when there was good and sufficient cause. That our association has been profitable to ourselves, to our fellow practitioners elsewhere, and to the public whose servants we are, has been manifested by the high estimate of our Society entertained by members of our profession generally, but especially throughout the Pacific coast, where our organization is of necessity best known. Whatever part I may have taken in the maintenance of the Society as an active member, will soon be a thing of the past, but that my membership therein has elicited the approbation of my fellows is gratifyingly attested by the unanimity with which you have applied the stamp of your approval to-night. To have unconsciously and without effort won the good will and esteem of one's fellow peers, is an achievement worthy of the highest ambition, and to have maintained their friendship for a term of 30 years during the active period of a more than busy career will ever remain one of the most gratifying recollections of my future life. And now that I am about to remove from Sacramento, where I have so many ties that bind me in sympathy and affection to her people, and from close and intimate associations with my fellows of this Society with whom I have passed so many pleasant and profitable years, I assure you there arises in my heart many pangs of regret and sorrow. But there is much consolation in knowing that the change is but one of place in the vicinity, and that oft recurring opportunities of reunion will be afforded me. In taking even this partial leave of you, however, I confess to a feeling of sadness which I would be untrue to myself were I to leave unsaid, for the greater part of my lifetime has been spent amongst you in a most harmonious manner. For all of your many kindnesses toward me, but especially for the respectful consideration of my weaknesses which has at all times characterized your actions, I am grateful and most sincerely thank you.

During my professional and social relations with you there has never arisen more than those differences of opinion which of necessity belong to every human calling. In leaving all such behind me, and relegating them to the oblivion of forgetfulness, let us all endeavor to ascend to higher ground, and to consider only the great principles which enter into the well-being of our profession. Let us catch renewed inspiration and enthusiasm, as when the weary traveler reaches some mountain height and surveys the landscape from horizon to horizon. As hill and valley, lake and river, meadow and forest, blend in one harmonious scene, so at this parting hour may our differences harmonize in the light of great and earnest purpose. Let us take as our motto the unwritten sentiment which has made the Sacramento Society for Medical Improvement an inspiration for ourselves and our fellows wherever known, "In essentials, unity; in non-essentials, liberty."

And here I am reminded that not long since allusion was made at one of our meetings to that "necessary rivalry existing between professional men in all communities." But, gentlemen, let not that jealous or envious rivalry which begets a desire to obtain unworthily that which our neighbor possesses, ever find a place in our hearts. Rather let us cultivate that noble and worthy emulation which inspires in the heart a spirit of superior excellence, and which will surely crown us with wreaths of honor. Let us remember that jealousy and envy always destroys happiness and ambition. Let us be charitable toward all men, for each one of us possesses frailties, always remembering that "a change of places," in "a treacherous inclination," would often explain "the reason why they did it."

"Then gently scan your brother man,
Still gentler sister woman,
Though they may gang a kennin' wrang,
To step aside is human.
Who made the heart; 'tis He alone
Decidedly can try us;
He knows each chord, its various tone,
Each spring, its various bias;
Then at the balance let's be mute,
We never can adjust it;
What's *done* we partly can complete,
But know not what's *resisted.*"

Thus wrote the Ayreshire plough-boy, the sweetest bard that ever sang, the advocate of manhood, freedom, brotherhood; who has left us such imperishable monuments, linking us so closely with nature, and from the wayward passions of whose own human nature, we may all learn lessons of wisdom.

In a noble and dignified profession like ours, there should be no petty jealousies, no backbitings, no underhanded biddings for preferment. Each should pursue the even tenor of his way, conscious of integrity, right, and honor. He should be true to himself as the needle to the pole, and he will surely be just and true to others.

Before parting with you I trust it may not be deemed inappropriate in me to say a few words to the younger members of the Society. To you who are but entering upon your work of life, let me conjure you to place before you high aims and lofty ambitions. Be inspired with literary and scientific tastes, and cherish the highest moral and intellectual ideal. By persevering industry in all things in general, and close application to your professional studies and duties in particular, you are certain to succeed; without these qualifications you are sure to fail. Aim high; be ambitious to contribute to the world's progress. You cannot all be preëminent, for such standard is only reached by the few; but each one of you can and should become more than ordinarily proficient, and can so cultivate the field as to increase the purifying light of professional knowledge, and thus be of lasting benefit to your less favored brethren. Your opportunities are far greater than were those of your predecessors, and you know it has been written that "to whom much has been given, of him much shall be required." It is upon you, the future success of this Society depends. An important trust is passing to your keeping, and it will be for you to pass on the torch of knowledge with undiminished brilliancy, ever burning with a clear and steady flame.

"As in the days of old, O, ye who stand
To-day on better vantage ground than they,
Take, in all reverence, from each spirit hand
The torch they lit before they passed away;
And bear it onward, 'till in every land,
The scattered lights become a Milky Way."

Dr. H. W. Harkness, President of the California Academy of Sciences, responded to the toast, "Science and Medicine." He expressed an abiding faith in the future of the Society, and joined with the members in regretting the removal of their esteemed fellow-member, Dr. Cluness. He believed that this Society was the peer of any in the State, and felt that its usefulness, of which in the past he was aware, would be continued in the future. He advocated the pursuit of scientific investigation outside the mere professional routine.

Dr. H. L. Nichols, in response to the toast, "The Pioneers of Medicine in California," said he was not a pioneer, having come to Sacramento only forty years ago, immediately after the great fire that had devastated the city. The levee on which he alighted from the steamer was then (January, 1853) about the only dry ground in town. He found here in practice Dr. Harkness, whose kindness in illness in those early days he should never forget. Among those who were in practice then many had now passed away. He recalled the names of Morse, Stillman, Nixon, Oatman, Logan, Johnston, Price and Williams, most of whom had been members of this Society. The departure of Dr. Cluness left but two or three of those who were present at the organization of the Society, and while he regretted the inevitable severance of ties, he felt that the reasons given were sufficient, and he wished him God speed.

A number of toasts were then given and responded to, every member present in turn expressing himself as befitted the occasion.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, December 20, 1892.

The President, G. L. Simmons, Jr., M. D., in the Chair.

Dr. W. E. Briggs read a paper on the "Practical Uses of Electricity in Ophthalmology" [to be published]. After the conclusion of the paper the author exhibited a number of steel fragments that had been extracted by the magnet from various parts of the eye.

Dr. W. R. Cluness.—In view of the removal of Dr. W. R. Cluness to San Francisco the following committee was appointed to provide for some testimonial on behalf of the Society: C. B. Nichols, The President, J. R. Laine, W. A. Briggs, J. H. Parkinson.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, December 13, 1892.

The President, H. H. Hart, M. D., in the Chair.

New Member.—Samuel J. Hankin, M. D., was duly elected a member of the Society.

The Treatment of Empyema.—Dr. C. G. Kenyon read a paper upon this subject. He said the treatment of this disease had occupied the attention of the profession from the very earliest times. Pus in the pleural cavity is generally regarded as a sequela of pleuritis, yet in one of the cases reported it was hard to trace the relationship. This, however, for the purpose of the paper was immaterial. Evacuation of the pus with subsequent drainage was the method usually employed. This plan had been varied in detail, but was usually followed by fatal results. The operation of exsecting a rib was a very simple one; the best location was the 6th and 7th. After removing the bones a counter opening was made at each end of the wound and a large drainage tube inserted and the cavity washed out; the wound was then closed and dressed. Subsequently daily dressings with thorough irrigations, perhaps washing out the cavity with peroxide of hydrogen, had given him very satisfactory results. The speaker then reported several cases, amongst which were the following:

My first operation was performed at St. Mary's Hospital, upon a young man once exhibited before this Society by Dr. Abrams, as a case benefited by the vacuum treatment. I was kindly referred to as having had something to do with the case. This operation produced excellent results in diminishing the scope or area of pus-producing surface, in fact, almost resulted in a cure, and I believe would have been entirely successful if more osseous structure had been removed, allowing a more perfect collapse. At this operation a piece of drainage tube was extracted from the pus cavity, it having been lost there, unknown to the patient, some months previous.

A second case, and one particularly interesting, owing to the age of the patient, 35 days at the time of operation, was a child of Mr. E. W. S——, born of healthy parents and apparently healthy and robust. On the third or fourth day after its birth, the nurse informed me that the child had a cough. As there seemed to be no indication for any treatment, and relying upon the hypothesis that an infant is usually born healthy, its parents being so, I paid no attention at first, to this cough, which was paroxysmal, and increased day by day, and later refused to yield to treatment. About the fifteenth day, Dr. Gibbons was called in consultation, and upon stripping and carefully examining the child, a dulness was detected over the right side. The paroxysms of coughing became more violent, and it was decided to aspirate the fluid. This was finally done under great stress, as the child in one of the paroxysms became moribund and would have been dead in a few moments had it not been relieved by decreasing the pressure. About 12 oz. of fluid were drawn off. This was about the 24th day; on the 35th a portion of the 7th rib was removed as above described, and in due course of time entire recovery followed. The child is now about 3 years old and perfectly healthy. I do not know of any other case on record where the operation has been performed on so young a child.

The speaker said he was not claiming originality in this method of treatment, but simply calling attention to its efficiency. He firmly believed that it afforded better prospects for a favorable result than the ordinary methods of drainage through the intercostal spaces. The tendency to closure of openings in the intercostal spaces is an obstacle that all must have encountered. Many of his hearers would remember the solid silver cannulæ, adopted by the late Dr. Toland, to overcome this objection. The difficulty is entirely obviated when we have only the soft parts of the chest wall to deal with.

DR. W. WATT KERR said that the existence of a purulent effusion in the pleural cavity was not always to be regarded as an indication for resection of the ribs. There were many cases of what might be called acute purulent effusion, where the effusion became purulent within a day or two after the commencement of the attack, that could be much better treated by inserting a drainage tube and frequently cleansing the cavity with an antiseptic solution introduced and removed by siphonage. The free end of the tube should always remain immersed in a vessel placed upon the floor, and containing an antiseptic solution, so that continuous drainage takes place. In cases where the lung cannot expand so as to obliterate the cavity, then resection should be performed so as to allow the chest wall to approximate the lung. The difficulty of retaining the drainage tube can be overcome by removing a small portion of one of the ribs.

DR. JAMES SIMPSON: I do not see that there has been any material change or improvement in the treatment of empyema for several years past. I do not think a rule can be established for the treatment of all cases. As a general rule the proper course is the removal of the fluid, but there are exceptions, as cases have recovered where there has been no surgical interference, and they might have died had they been operated upon. An operation upon so young a child is something new to me and speaks well for the operation.

DR. T. B. DEWITT: My experience has been with the canula, with the exception of one case, where a man was gored by a cow—the ribs were removed and the case recovered. I certainly think I shall consider and act upon Dr. Kenyon's suggestions in the future.

Dr. Emma S. Merritt said primary excision of the ribs seemed to her an unnecessarily severe measure in children. She had recently had under her care at the Hospital for children two cases of empyema, both girls, and both about 8 years of age. Stella R—— entered with all the symptoms of pyemia. Temp. 104° F, with daily remissions of 3 or 4 degrees. Great emaciation. Her heart beat on the right side, outside the right nipple. There was a distinct tumor on the upper part of the thorax, on the left side, due to partial absorption and bulging outward of the ribs. The chest was aspirated twice with temporary relief, and on each occasion a quantity of very fetid pus containing bubbles of gas was withdrawn. An intercostal space was then opened, and several pints of very fetid pus escaped. The cavity was washed out with liq. sodæ chlorinatæ 1:20, drainage tubes inserted, and the wound dressed in the manner described by Dr. Kerr. The cavity was washed out at first every other day, then every three to four days. The temperature fell immediately. The discharge became less and less fetid, and diminished in amount. The wound gradually healed, first one drainage tube was withdrawn, then the other, and before the wound closed entirely there was little or no discharge from it. The heart slowly returned to its normal position, the bulging in the precordial region disappeared, dulness diminished, and the respiratory murmur could be heard all over the left side. The patient was discharged cured. The second case, Martha H——, also had empyema of the left side, and the apex of the heart was also felt and heard outside and below the right nipple. This child's general condition on entering was better than that of Stella R. Temperature about 102° F. Drew off about 1½ ounces of thick, pale green, odorless pus. Pleurotomy was proposed, but on account of the objection of the mother, a second aspiration was made and over 9 ounces of pus withdrawn. That remaining was absorbed. The heart regained its normal position, dulness diminished, and the respiratory murmur reappeared over the base of the left lung. This patient also had an intractable vaginal catarrh and a temporary enlargement of the cervical glands, indicating a strumous diathesis. Before making an excision of the ribs we should, therefore, remember the greater curability of empyema in children than in adults, and also the fact that on account of their chest walls being less rigid and more pliable they will yield and so help obliterate any cavity that may be left in case of incomplete expansion of the lung.

Dr. F. B. Carpenter: I should hesitate to resect a rib in a child so young, but sufficient drainage could be obtained by removing the lower portion of the rib above the incision, thus preserving a portion of the rib to sustain the chest wall. I certainly think Dr. Kenyon is right in resecting ribs in old chronic cases where there are adhesions. Dr. Barbat had suggested that the air be exhausted from the cavity by placing a suction pump over the incision and forcing air into the lungs through the trachea. I think that aspiration is useless in empyema, and the only way is to open the chest wall and evacuate the cavity.

Dr. C. G. Kuhlman objected to the term exsection for this operation, holding that the proper terminology should be excision. Rib excision and the formation of an artificial fistula for the purpose of drainage might be considered the radical operation for cure of empyema. The literature on this subject in the English language was very scant, owing to the fact that uncomplicated empyema, the only condition in which this operation is indicated, occurs mostly in Northern European countries, and cases are recorded in the Scandinavian language. The latest and most valuable contribution on this subject is furnished by Prof. Runeberg, of Helsingfors, who gives the results obtained in 105 cases operated on by various methods, from 1876 to 1890. He divides his cases into three classes: (1) Those treated by daily irrigation of the pleural cavity. (2) Those treated by irrigation at the time of operation, and thereafter when indicated by the odor of the pus. (3) Those treated by drainage alone. The first class comprises 20 cases. Of these, 6=30 per cent. recovered completely; 9=45 per cent. recovered with permanent fistulas; 5=25 per cent. died. The second class comprise nine cases, of which 7=78⅛ per cent. recovered completely and two recovered with fistula. The third class comprise 58 cases, of which 56=96.5 per cent. recovered completely, one recovered with fistula, and one died from infection and erysipelas. The average time of recovery in each class was as follows: First class, 111 days; second, 88 days; third, 52 days. Holsti and others have asserted that the washing out of the pleural cavity is the cause of persistent fistulas and death in uncomplicated cases of empyema. The speaker had treated five cases by sim-ple drainage with the same uniform results as those obtained by Runeberg. The consensus of medical opinion, based upon reliable scientific data, has rendered the treatment employed by Dr. Kenyon, and referred to in his paper, unscientific and obsolete.

Dr. C. C. Wadsworth called attention to a case that came under his observation about ten years ago. The lady had been sick about ninety days when first seen. The left side was enormously distended, with bulging of the intercostal spaces. After consultation with Dr. McNutt, it was determined to open the chest wall, which was done by making an incision with a thumb lancet. The amount of pus discharged was 112 ounces, and so offensive that it was almost impossible to remain in the room; the incision was plugged with gauze to keep it open. The opening was well up the side, and as sacs appeared below they were opened in the same manner. These openings were twenty-three in number. At times there were two or three open simultaneously, and all discharging pus. As the pressure was removed the lung seemed to respond. About four months after first seeing the case the patient had a very severe coughing spell, and there was about a pint of pus vomited. The expectoration of pus continued for over a year, and the discharge from the side continued for about two and a half years. The case was under observation for about three and a half years, after which the patient was lost sight of through having removed to the east. He was informed that her health has been fully restored.

The President favored the operation of exsection of the ribs. He had had several cases, the last operated upon a few months ago. This patient suffered originally from necrosis of the ribs. He removed portions of the fourth, fifth, and sixth ribs, and between five and six inches of the seventh rib. Several ounces of fetid pus were evacuated; for some months this had passed out through a sinus. The cavity and wound were thoroughly cleansed, a large drainage tube put in, and the parts dressed with iodoform gauze. The cavity was subsequently washed out daily with an antiseptic solution and the wound redressed. In two months the patient recovered, and is now in good health.

Dr. Kenyon, in replying, said that his cases had not recovered so rapidly; some had taken half a year. Irrigation might be overdone, but a fistula was not sufficient to remove the pus. The chest wall must be allowed to collapse, and this was simply a method of keeping the cavity clean.

Pan-American Medical Congress.—Upon motion, the following resolution was adopted:

Resolved, That it is the sense of the San Francisco County Medical Society that the Congress of the United States appropriate the sum of $43,983 to partially defray the expenses of the Pan-American Medical Congress, to be held in Washington September 5, 6, 7, and 8, 1893.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, October 15, 1892.

Luke Robinson, M. D., in the Chair.

A Cup-shaped Condition of Femoral and Tibial Epiphyses, Resulting in Accidental Removal.—Dr. H. M. Sherman reported a case, in which a peculiar mischance had happened; its possibility had been foreseen, and precautions taken to avoid the same. The patient was a boy, aged 12 years, with a deformity of the knee, resulting from a hatchet cut, just above the patella. Following the accident a suppurative synovitis had set in, resulting in a fibrous ankylosis, with a flexion of 75 per cent. At the time of operation, the deformity was of four years standing. In order to correct it, the idea was to remove a V-shaped piece from the joint, and to keep the lines of section within the epiphyseal planes of both femur and tibia. As a rule there is no difficulty in removing the bone in this manner. In this case, the wedge-shaped piece was cut out, and the parts brought together in perfect apposition. The bones were nailed together and the wound sewed up. On examining the wedge later, it was found that instead of the epiphyseal surfaces being flat or plane, they were cupped. The wedge, therefore, contained the bottoms of both femoral and tibial epiphyses. Several works on anatomy had been consulted, and the plates all represented the epiphyseal junction as a line, or flat stratum. In the case reported, the arrangement resembled two inverted cones approximated. The speaker had put the leg in a plaster splint, and was awaiting developments. What the result would be he could not say. He inqnired if any of the members were aware of any anatomical works giving this description.

DR. L. ROBINSON said the Society had some excellent plates, and he thought Dr. Sherman would be able to find something in them. He asked whether Holden did not describe this arrangement fully.

DR. JAS. SIMPSON was of the opinion that, as, even in children of the same age, development of the bones was different, it would take a great amount of investigation to demonstrate the exact peculiarities of the epiphyseal lines.

DR. W. A. MARTIN inquired if the operator had consulted Henle.

DR. S. STILLMAN said the study of a chicken fricassee shows the same convex surfaces.

DR. D. W. MONTGOMERY said the head of the femur comes away as a cup.

DR. SHERMAN said he had never seen a hip joint where it was so cup-shaped, as in this case. He had not consulted Henle. Holden did not describe the condition more fully than other authors.

Intestinal Obstruction and Strangulation from a Band.—DR. L. ROBINSON reported a very interesting case that he had lately seen. The patient, a lady, commenced vomiting about three weeks before. There was no tympanitis or fever. There was a history of an old fecal impaction, and once a year for the last 13 or 14 years, she had had an attack. She continued to vomit, and there was no movement of the bowels for 12 days; this went on and the patient was brought to St. Mary's Hospital, still vomiting, pulse weak, temperature normal. The abdomen was opened and above the ileo-cecal valve was found a transverse band about 2 x 3 inches extending across the bowel, apparently the remains of an old typhlitis. Four inches of the colon were embraced by this band and were gangrenous, the contents escaping into the cavity as soon as the bowel was lifted up. The case was so bad no hope was entertained for her recovery and she died the next day. The interesting point is the fact of there being four inches of the colon gangrenous and no abnormal temperature.

Clot in the Portal Vein.—DR. D. W. MONTGOMERY reported a case of clot in the portal vein, that he had seen with Dr. Burgess, and of which he had made a *post-mortem* examination. The patient, a male, did not present any definite symptoms. He had slight cirrhosis of the liver, but not enough to have caused death. The heart was rather weak and fatty, and the man was quite a heavy drinker. His trouble was believed to be indigestion, and was so treated. On *post-mortem* examination the kidneys were found only slightly deranged, heart fatty and small for the size of the man, valves normal. The peculiar feature was a small piece of the ilium that was greatly congested, the mesentery behind it being as heavy as lead. The cause of the congestion could not at first be made out; an embolus was looked for in the mesenteric artery, but none was found, and there was nothing in the bowel to cause it. The speaker happened to think of the portal vein, and on examination found an old clot. The tissues were infiltrated, there was very little cirrhosis, and no phlebitis in the vein. The aorta was normal and there was no atheroma.

DR. A. L. REGENSBERGER asked if there was any ascites. He thought there must have been some.

DR. MONTGOMERY said there was considerable. He thought the man would not have died had it not been for the weak heart. Of course all aided, but it was probably due to the weak heart and great slowing of the blood in the vein. Then from some slight cause the clot was started and everything blocked up.

Coincidence of Peculiar Cases.—DR. W. A. MARTIN cited two cases, showing how peculiar cases run together. Two children had been brought to him at the Polyclinic during the same week. In both a shoe button was removed from the nostril. The buttons had been there for some time, one at least for three months, and this was encysted. The first child had been to several physicians, but the foreign body remained undetected. The speaker said beads, etc., have been removed from the nose after several years; they make a nest for themselves, as it were.

Dr. H. M. Sherman said he knew a young lady who had coughed up a blue glass bead about one-fourth the size of a pea. She was at a loss to know where it came from; finally she remembered that about 6 years before, when playing with some beads of that kind, making a necklace, she suddenly sneezed throwing her head forward into the basket containing the beads. Knowing the exact number of beads, she missed one immediately and was unable to find it, until 6 years afterward she coughed it out.

Dr. Jas. Simpson mentioned a case illustrating how tolerant mucous membrane could become to any foreign substance. Many years ago, when practising in the mountains, a man had consulted him for rectal trouble, with a history of a discharge for the past six months. The patient was examined as best he could, but the result was not satisfactory. Later on an anal speculum was used, but without result. A probe was then passed in about four inches, when it came in contact with with a hard, bony substance. The patient was chloroformed, a pair of forceps inserted, the mass seized and removed after great labor, when it was found to be the thigh bone of a chicken. The patient was questioned afterwards and finally remembered that on the previous Christmas (it being then August), while intoxicated, he had eaten chicken and swallowed the bone. The bone was not much changed, though having been in the bowel that length of time.

Dr. Sherman spoke of a lithotomy by Dr. E. F. Caswell, of Providence, R. I., where the "stone" was found, afterward, to be a bone. The bladder never gave any evidence of the presence of disease till evidences of obstruction began to show.

Dr. A. E. Regensberger said Langabeck had found a steel needle holder as a nucleus; and in another case it was a lot of small pieces of straw. The speaker also mentioned a woman who had been sent to him to be treated for chancre. There was an ulcer the size of a five-cent piece on the side of the cervix and down the vagina; no other indications or symptoms. She had an ovaralgia and the physicians had given her a constant current battery of 18 cells to use, one pole over the ovary, the other inside the vagina, twice a day. This ulcer disappeared in a week or so, and was no doubt the result of the electric current.

Method of Duhomme for Estimating the Quantity of Glucose in the Urine.—Dr. G. Gross described Duhomme's method of estimating the quantity of glucose in the urine as follows: *Apparatus*—Two graduated droppers of exact calibre; one for the Fehling solution marked to indicate a capacity of 2 cc., the other for measuring the urine marked for 1 cc.; also six test tubes that will freely admit the droppers. *Reagents*—Titrate Fehling's solution, of which 2 cc. are reduced by 0.01 of glucose. Caustic soda solution 1:10. *Modus operandi*—First count the number of drops in 1 cc. of the urine to be examined, then drop 2 cc. of Fehling's solution and 2 cc. of the caustic soda solution into each of the six test tubes, and to this mixture add the urine to the tubes, arranged in series as follows: 1st, tube, 1 gtt.; 2d, 2 gtt.; 3d, 3 gtt.; 4th, 4 gtt.; 5th, 5 gtt.; 6th, 6 gtt. Next, heat each tube successively and examine for decoloration. If the reduction be not obtained continue the experiment by adding 6 gtt. to each tube, then heat and again examine, and continue the process until the blue color has completely disappeared. If the suspected urine gives 18 drops to the cc., as counted by the dropper, and that 9 gtt. were necessary to obtain the reduction, then $\frac{9}{18}$ cc. of the urine contains 0.01 of glucose. To ascertain the amount of sugar, multiply by 10 the number of gtt. representing 1 cc. of the urine, and divide the result by the number of drops necessary to reduce 2 cc. of Fehling's solution, and you have in grammes and centigrammes the quantity of sugar in 1 litre of urine. It is, of course, always best to first make a qualitative test for sugar, and also for albumin, as the latter interferes with the reaction. When the urine is too rich in glucose it may be necessary to dilute it with 1, 2, or 3 times its volume, and to calculate the result accordingly, Sometimes the result is intermediate between 2 consecutive drops, in which case take the average number. Again, when under treatment the quantity of sugar has notably diminished, you may simply ascertain whether this does not surpass a given number: 10 grammes, for instance, or 5 grammes, then the operation is still more rapid. Mix 2 cc. of Fehling's and 2 cc. of soda solution, heat, then measure exactly 1 cc. of urine, add it at once to the reagent and again heat. If the blue color does not disappear the urine contains less than 10 grammes of sugar. You add then a second cubic centimetre of urine, and, if after heating, the coloration persists, the urine contains less than 5 grammes of sugar; if it disappears, the quantity is between 5 and 10 grammes. Dr. Duhomme has published a table giving the result for all cases. The only apparatus really wanting is the graduated tubes.[1]

Regular Meeting, November 19, 1892.

The President, **Luke Robinson**, M. D., in the Chair.

Dr. Stanley Stillman read a paper on "Thiersch's Method of Skin Grafting as applied to Granulating Surfaces," [published at p. 72]. In connection with the paper he reported several cases in which the method had been used. In one of these cases the ulceration had persisted for 15 years.

Dr. W. S. Thorne asked if it made any difference whether the granulating surface was above or below the surrounding tissue, and whether the cicatrix would eventually rise to the surrounding level. An ordinary cicatrix is only found when the granulating surface is level with the integument. He wished to know if the scar presented a normal appearance and whether the whole surface should be covered at the primary operation.

Dr. Stillman said that it made little difference. He had seen grafts "take" three-quarters of an inch below the surrounding surface, even down to the muscular layers. Of course it was preferable to keep near the surface. The resulting cicatrix would not be depressed or bound down. He had been unable to follow up the cases in which the ulcers had been so deep, still he saw no reason why the cicatrix should not rise. In an ulcer, where the base has been cut out down to the deep fascia, there is but little depression and the cicatrix soon rises to the level of the surrounding integument.

Dr. G. S. Shiels thoroughly endorsed Thiersch's method. He cited the case of a patient in the Polyclinic ward of the City and County Hospital, who, after an attack of typhoid fever, developed a slow, indolent, non-healing ulcer on the back; a weak cicatrix had formed, but had broken down. The ulcer was scraped out well and grafts applied, as in Dr. Stillman's cases, and now it had practically healed. Another case in which he intended to operate was that of a child with an immense burn, covering about 125 square inches of the back. In this case the granulations stand out well above the marginal cicatrix and bleed readily. Dr. Shiels asked Dr. Stillman if he should spoon off these granulations thoroughly or only superficially.

Dr. Stillman replied that Thiersch's rule was that the grafts should be placed on normal tissue. The hemorrhage resulting from the use of the dull curette was not severe. After a bad burn a patient is more or less depressed. In such a case, etherize, scrape the surface quickly, cut the grafts quickly, and while doing so the curetted surface may be compressed and the bleeding checked; there should be no clots under the grafts. Where an Esmarch bandage can be applied, there will be no bleeding; the bandage should be kept on for an hour after the operation; this insures coagulation; no bad effects follow this practice.

Dr. Rethers stated that recently while in Germany he had seen cases where grafts were applied after extirpation of lupus.

The President was of the opinion that in cases of lupus, the loss of tissue in operation would be considerable.

Dr. D. W Montgomery had noticed in the German journals where, after extirpation, skin had been grafted on the raw surface. This had been applied even to the eyelid. He thought a great deal depended on the application of a good bandage after the operation. If chloroform were used instead of ether, there would be less liability to vomiting and consequent disarrangement of the bandages, and also less danger of hemorrhage, especially in operations about the head and neck. Another interesting point was the overlapping of the edges of the grafts; this obviates the "gridiron" appearance often noted after healing.

Dr. Stillman, in replying, said that his paper did not cover the entire field of usefulness of the method. In the treatment of deformities and in lupus he had no experience with it. He had seen a case mentioned where the graft had been transplanted to the conjunctiva after removal of a large pterygium with successful result. The method had also been applied to recent wounds with considerable success. For instance, in a case where the breast had been removed and the edges of the wound cannot be approximated, the raw surface is covered with grafts and the results are said to be excellent. The "gridiron" appearance lasted for a variable time, but as a rule finally disappeared and the thickness of the skin became normal. Of course there were no hair, sweat, or sebaceous glands. It was best to cover the whole surface at once; if the grafts are overlapped there is no contraction. The bandage was very useful in controlling hemorrhage after the application of the grafts.

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[1] These can be obtained from William Hatteroth, of San Francisco.

DR. H. M. SHERMAN, on being requested to read his paper, replied that he had selected the same subject as Dr. Stillman, and as this had been discussed so fully he would not read his own. He desired, however, to present the specimen from the case reported at the previous meeting, in which he had operated for ankylosis of the knee. In this case he had made careful measurements and mapped out his course, intending to keep within the epiphyseal lines of the femur and tibia, but in making the section had cut through into the diaphysis. In this case the epiphyseal cartilage appeared as a cup set upon a convexity of the diaphysis. He had asked the members of the Academy at the last meeting if any had ever seen a similar case, or had ever noticed any mention of such in the text-books on anatomy. He had been led to believe from anatomical descriptions and plates, that the epiphyseal line was a flat plane. He had since looked up the subject thoroughly, and had found one authority who stated that the epiphyseal line was lower posteriorly than anteriorly. No mention was made, however, of its being cup shaped. In this case, the saw entered the epiphysis of the femur, cut about one quarter of the distance through the bone, then entered the diaphysis, afterwards reëntering the epiphysis. On the tibia he had cut into the diaphysis at one point, but the amount involved was small and insignificant. Since then he had operated on a couple of hip joints, the seat of tubercular epiphysitis, and had made sections of the parts removed to show the epiphyseal lines. In one the line was straight, running directly across the head of the femer; in the other, it was irregular, being wavy in outline, with little processes projecting into the diaphysis. As a result of his experience in these cases, he considered the statements of the text-books to be thoroughly misleading. The case had not healed as yet. There had been a little suppuration in the centre of the wound. He had used the buried silk sutures, and there might have been irritation set up by those near the surface, causing the suppuration. He would like to have opinions expressed as to the ultimate result of the operation. Would the limb shorten as the boy grew? Having cut into the epiphyseal line, there would be an irregular growth of bone around the periphery and none in the centre. What would this cause? There would be a strain on the tissues and how would they stand it? He had nailed the femur and tibia firmly together with round and heavily plated, soft steel nails; these had been left *in situ* for a week and then withdrawn. The immediate result was good, but he did not know what the ultimate result would be.

DR. W. S. THORNE spoke of an operation consisting in a partial breaking up of the bony tissue by means of a chisel and then forcibly straightening the limb.

DR. S. STILLMAN asked what he would do if the soft parts in the popliteal space would not permit of stretching. He had heard of a case where the popliteal artery had ruptured when the limb was forcibly straightened, but in this case the deformity was the result of a suppurative synovitis that had pointed in the popliteal space so that the artery was bound down. Ordinarily, the rupture might not have happened.

DR. SHERMAN said that in his case, the tissues in the popliteal space would not permit of such stretching; the leg was flexed almost at a right angle. He did not like the idea of using much violence in a child; it might cause a fracture of the limb. If he had to do the operation again, he would operate entirely in the diaphysis, removing a wedge-shaped piece above the knee. There would of course be an unsightly lump over the knee, instead of a shapely knee, but the danger of cutting the epiphyseal line would be averted. He believed it was Dr. Sayre who had a case where the knee had to be returned to its former bent position on account of the tension on the popliteal vessels occluding their lumen.

Trephining the Trochanter in the Removal of Cancellous Structure by Curette.—DR. H. M. SHERMAN spoke of three operations lately performed, where he had trephined the trochanter femoris and excavated that structure as well as the head and neck of the bone. The clinical features in these cases pointed to involvement of bone only, there being extreme pain unrelieved by extension and succumbing only to morphine. One case was that of a girl of 14, with tubercular symptoms, complaining at night of pain in the neck of the femur. He trephined and removed all of the cancellous tissue by means of a sharp spoon. The second case had tubercular foci limited to the trochanter. The third case was, like the first, acting badly for a while and finally improving. The growth of new tissue at present is firm and granulations are not flabby. There had been an abscess not connecting with the joint. In his opinion, these operations promised a great deal if parents would only give their consent to their early performance. When to do it is the important point. In connection with this subject the speaker mentioned a new method of operating in psoas abscess, by opening in the groin and using a long antiseptic curette to scoop out the cavity, afterwards closing it up. He had operated by placing a strip of gauze in the cavity for 48 hours and then removing it.

DR. W. S. THORNE said, in his experience the best results were obtained in cases where there was not a great amount of diseased tissue nor any degenerative disease of the kidneys following prolonged suppuration. In one case where he had removed the trochanter and neck of the femur, union occurred in eight months. The patient's habits of life were bad, and for that reason healing was tedious.

DR. S. STILLMAN asked Dr. Sherman the diagnostic points in cases where the neck only is affected?

DR. SHERMAN replied that the question was short, but the answer long. Usually the point where trouble begins is just external to the epiphyseal line on the under surface of the neck. Clinically speaking, that part of the bone is the weakest. Generally, the first symptom of hip joint disease is a weakness of the femoral neck, due to the invasion of bacilli. The child will limp before he feels pain. If he be placed on one foot he will balance his weight over the head of the bone, instead of using the neck as a lever. The limp may be noticed only in the morning, or may not be present at all. In the first stage there is no pain. If the child be placed on his back, and the joint put through its physiological movements, flexion is not quite normal, extension and rotation are interfered with. This is known as Marsh's test, and is generally reliable. There will be no fulness in the groin, no thickening of the neck, no fever. In reply to an inquiry whether he would operate if these symptoms alone were present, the speaker said he thought it a plain proposition. No drug could touch the disease. Medication could only help by putting the child in condition to fight it. The knife alone could reach the seat of the trouble.

DR. STILLMAN asked Dr. Sherman if he had ever tried healing by blood clot in cases where the neck of the femur had been trephined. The speaker had removed the whole of the cancellated tissue from the os calcis, and it had healed rapidly by the clot method.

DR. G. GROSS inquired if Dr. Sherman had ever tried injection of chloride of zinc in these cases, and if he did not think that there was a certain degree of auto-inoculation in operating?

DR. SHERMAN had not tried healing by blood clot. He believed that up to a certain point the clot was antiseptic, and after that an excellent culture medium. He simply packed the cavity with iodoform gauze, and kept it packed. When he noticed the granulations flabby, he used the curette. His best results followed packing. If he were sure that he had removed every spore from the joint and had absolute cleanliness, he would be willing to risk the blood clot. It was a different matter in the case of the os calcis. There everything was plainly in sight, but in the hip joint the trouble is deeply situated and hard to reach. He preferred 20 per cent. iodoform gauze, and believed that iodoform had an anti-tubercular action. When this plan did not work well he used an ethereal solution of iodoform, pouring it into the wound and allowing the ether to evaporate. This placed a coating of iodoform in every nook and corner of the wound. He had not used chloride of zinc injections in these cases, he mentioned a plan, at one time in vogue, of injecting an acid solution of lime phosphates. He considered these methods only resulted in encapsulating the bacilli.

He did not think that the danger of auto-inoculation was any greater than that of encapsulation following injections.

DR. THORNE believed that the various speakers during this discussion had overlooked the fact that the limp in commencing hip joint disease had heretofore been referred to irritation of the nerve filaments. He had always understood that disturbed flexion, extension, adduction, etc., were due to the shortening. He believed that the irritation of the nerves of the joint caused the limp.

DR. SHERMAN said that in the bones there was a sense akin to the muscular sense. The individual seems to know when the bone is strained, and the limp is purely a mechanical accommodation to the bone. If the disease had not weakened the bone there would be no limp. A small area of softened tissue in the neck of the femur is of greater importance than a large area in other bones, in the knee, for instance, or in the os calcis.

DR. THORNE inquired if Dr. Sherman would eliminate all question of nerve irritation in incipient cases of hip-joint disease. If so, what conducted the so-called "bone sense" to the sensorium. He believed that pain was present even in the earliest stages of hip-joint disease. According to his view the limited motion was due to two causes, tender area and spastic muscular contraction.

DR. SHERMAN admitted that nerve fibres existed in bone, but claimed that there was a distinction between ordinary sensation and "bone sense." It was true that pain was present in the earliest stages, but the pain was limited and within the range of painful motion, the patient could walk. When the patient is put on the table and motion is carried to its extreme, as in extension, there is a strain on the neck of the femur, and the child will instinctively resist. This is also true in complete flexion. From a pathological standpoint, he believed that the so-called "irritation" began in the bone, but the term "irritation" was not clear to his mind. He believed it to be an heirloom.

DR. THORNE said he had always believed that the necrosis of bone about the nerve filaments produced an irritation or inflammation, and set up the phenomenon of pain.

DR. SHERMAN said that the term "necrosis" was a vague one.

DR. G. F. SHIELS thought that pain was one of the symptoms of ordinary weakness, and is appreciated by a vague sense.

DR. THORNE said, if such is the case there must be a sensory tract in bone connecting with the brain which tells there is a weakness in the neck of the bone.

DR. SHIELS was positive that bones had sensory fibres.

DR. D. W. MONTGOMERY explained that the motor nerves of muscles were the sensory nerves of the bones moved by the muscles.

DR. W. W. KERR closed the discussion by stating that he believed the limp to be due to a "discomfort."

REVIEWS AND NOTICES.

TUBERCULOSIS OF BONES AND JOINTS. By N. Senn, M. D., Ph. D., Professor of Practice of Surgery in Rush Medical College; Professor of Surgery in the Chicago Polyclinic; Attending Surgeon Presbyterian Hospital; Surgeon-in-Chief St. Joseph's Hospital. Illustrated with 107 Engravings (seven of them colored). Philadelphia: The F. A. Davis Co. pp. xiv. 520. Extra cloth, $4.00; sheep and half-Russia, $5.00.

As an authority upon surgical pathology in general, Professor Senn now occupies an accredited position in the first rank. In this volume much space is devoted to bacteriological pathology, and opinions advanced are fortified with voluminous references to many authorities. The symptoms, course, and channel of invasion are clearly defined, and much light is thrown upon each of these subjects. In matters pertaining to treatment, it must be confessed that the author is scarcely in accord with many whose wide experience entitles them to a respectful hearing. Particularly is this true with reference to mechanical treatment. Professor Senn, it would seem, is a pessimist as regards non-operative measures. Most of the modern joint and bone operations are clearly set forth, and in this particular the practitioner will find much that is of interest and value. In the choice of operation specially adapted to a given case, the time has evidently not yet arrived when a positive opinion can be vouchsafed.

AGE OF THE DOMESTIC ANIMALS. Being a complete treatise on the dentition of the horse, ox, sheep, hog, and dog, and the various other means of determining the age of these animals. By Rush Shippen Hindekoper, M. D., Veterinarian (Alfort, France); Professor of Sanitary Medicine and Veterinary Jurisprudence, American Veterinary College, New York. Illustrated with 200 engravings: Philadelphia: F. A. Davis. $2.25; cloth, $1.75.

To all owners of horses, dogs, and other domestic animals, this work will prove very interesting and valuable. The subject of dentition in the domestic animals is treated exhaustively, but plainly, and from a practical standpoint. The author's aim was to prepare a work suitable for laymen, students and veterinarians. There are nearly two hundred large engravings, with copious and clear descriptive matter appended.

MEDICAL NEWS.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from December 20, 1892, to January 20, 1893.

Upon recommendation of the Medical Director of the Department, First Lieutenant G. M. Wells, Assistant Surgeon, will proceed from Fort Grant to San Carlos, A. T., reaching the latter post by the 5th proximo, for duty during temporary absence of Assistant Surgeon Shillock. Upon completion of this duty, Assistant Surgeon Wells will rejoin his proper station. Par. 1, S. O. 169, Dept. of Arizona, Dec. 30, 1892.

The telegraphic instructions from these headquarters of the 14th instant, to the commanding officer Fort Sherman, Idaho, directing First Lieutenant William E. Purviance, Assistant Surgeon, to proceed without delay to Fort Spokane, Wash., for temporary duty, are confirmed. Par. 3, S. O. 10, Dept. of the Columbia, Jan. 16, 1893.

Major David L. Huntington, Surgeon, Medical Director of the Department, will proceed to Fort Grant, San Carlos, and Fort Bowie, A. T., and Fort Bayard, N. M., for the purpose of making the inspections contemplated in A. R. 1662 and Circular No. 6, series 1892, from this office, and upon completion of this duty return to his proper station. Par. 3, S. O. 10, Dept. of Arizona, Jan. 23, 1893.

The leave of absence granted Captain Louis W. Crampton, Assistant Surgeon, is extended three months.

First Lieutenant Thomas U. Raymond, Assistant Surgeon, is relieved from further duty at Vancouver Barracks, Wash., and will report in person to the commanding officer Fort Canby, Wash., for duty at that station, relieving Captain Edward C. Carter, Assistant Surgeon, who on being thus relieved will proceed to Vancouver Barracks and report in person to the commanding officer of that post for duty there.

By direction of the Secretary of War, two months' ordinary leave of absence is granted Captain Marcus E. Taylor, Assistant Surgeon, to take effect upon the expiration of his present sick leave.

First Lieutenant Frank R. Keefer, Assistant Surgeon, is relieved from duty at Fort Riley, Kansas, and will report in person to the commanding officer Fort Stanton, New Mexico, for duty at that post, relieving Captain John M. Banister, Assistant Surgeon. Captain Banister, upon being relieved by First Lieutenant Keefer, will report in person to the commanding officer Fort Leavenworth, Kansas, for duty at that post.

PROMOTION.

Captain Louis M. Maus, Assistant Surgeon, to be Surgeon, with the rank of Major, December 4, 1892, vice Hartsuff, promoted.

Official List of Changes in the Medical Corps U. S. Navy (Pacific Station) from December 20, 1892, to January 20, 1893.

Assistant Surgeon J. C. Bagg detached from the Naval Hospital, Navy Yard, Mare Island, Cal., January 3d, and ordered to report for duty on board the U. S. Flag-ship "Mohican," on same date.

Assistant Surgeon George Rothganger ordered to report for duty at the Naval Hospital, Navy Yard, Mare Island, Cal., January 16th.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from December 20, 1892, to January 20, 1893.

Assistant Surgeon B. W. Brown, ordered from San Francisco, Cal., to Port Townsend, Wash., December 17, 1892.

Assistant Surgeon G. M. Magruder, ordered from Port Townsend, Wash., to New Orleans, La., December 17, 1892.

ITEMS.

Erratum.—In foot-note to Dr. Stillman's paper on page 72, for Bd. iii, No. 69-75; Bd. v, No. 17-19; Bd. xvii, No. 66; read, 1874, No. 3, pp. 69-75; 1886, No. 5, pp. 17-19; 1888, No. 17, pp. 66.